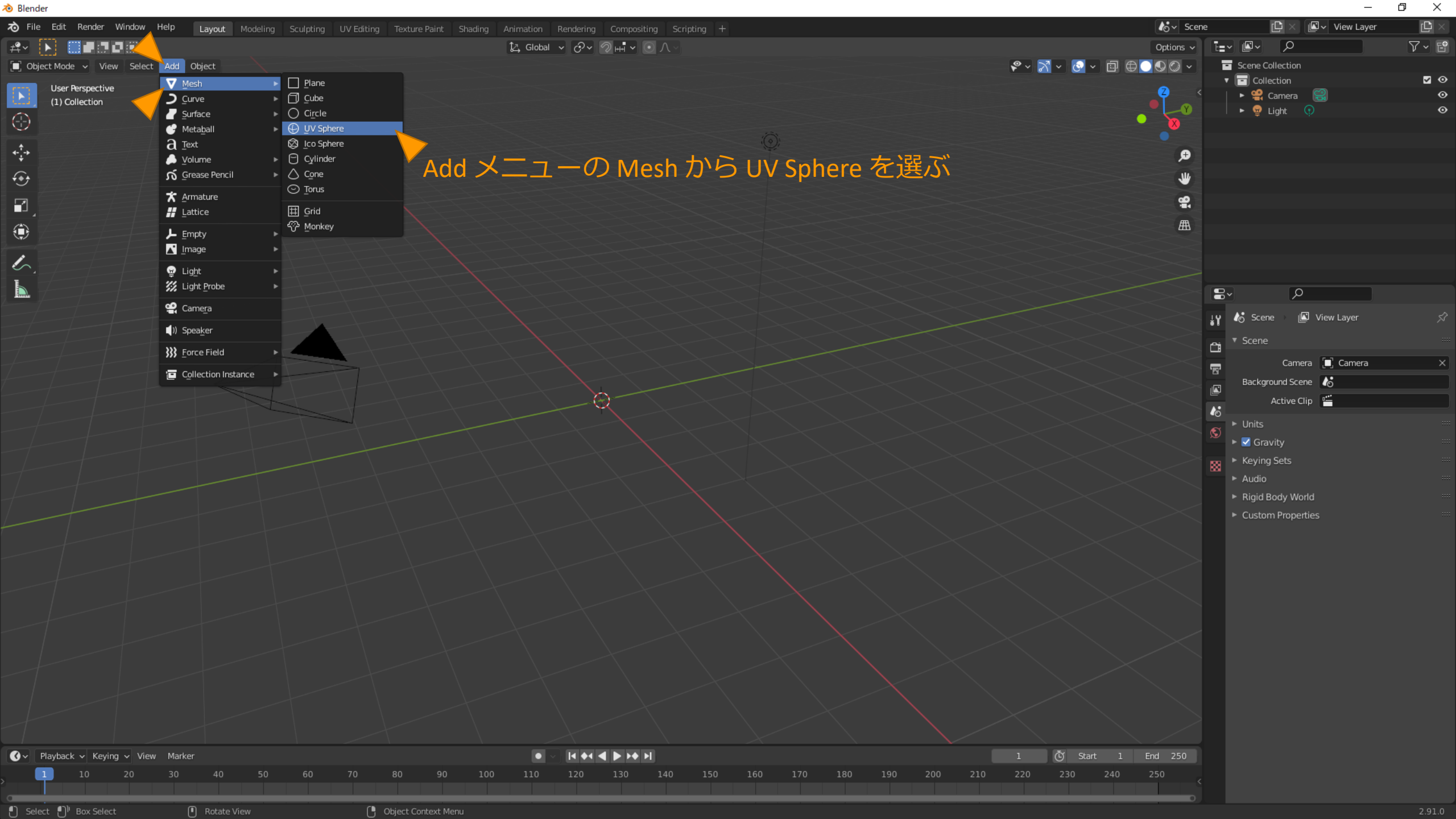
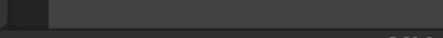
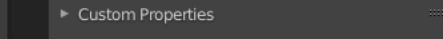
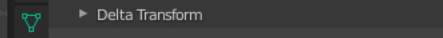
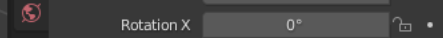
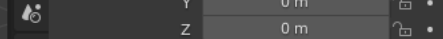
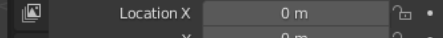
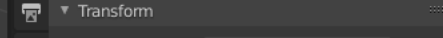
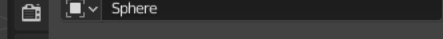
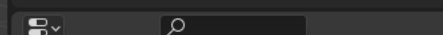
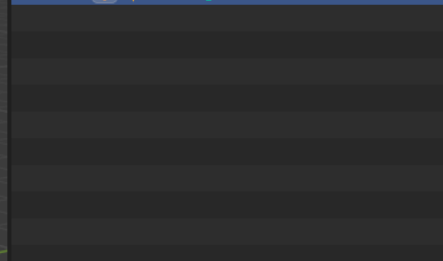
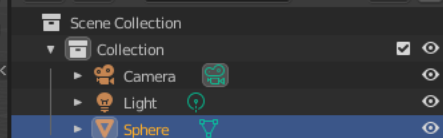
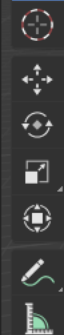


ノイズでバンプマッピング

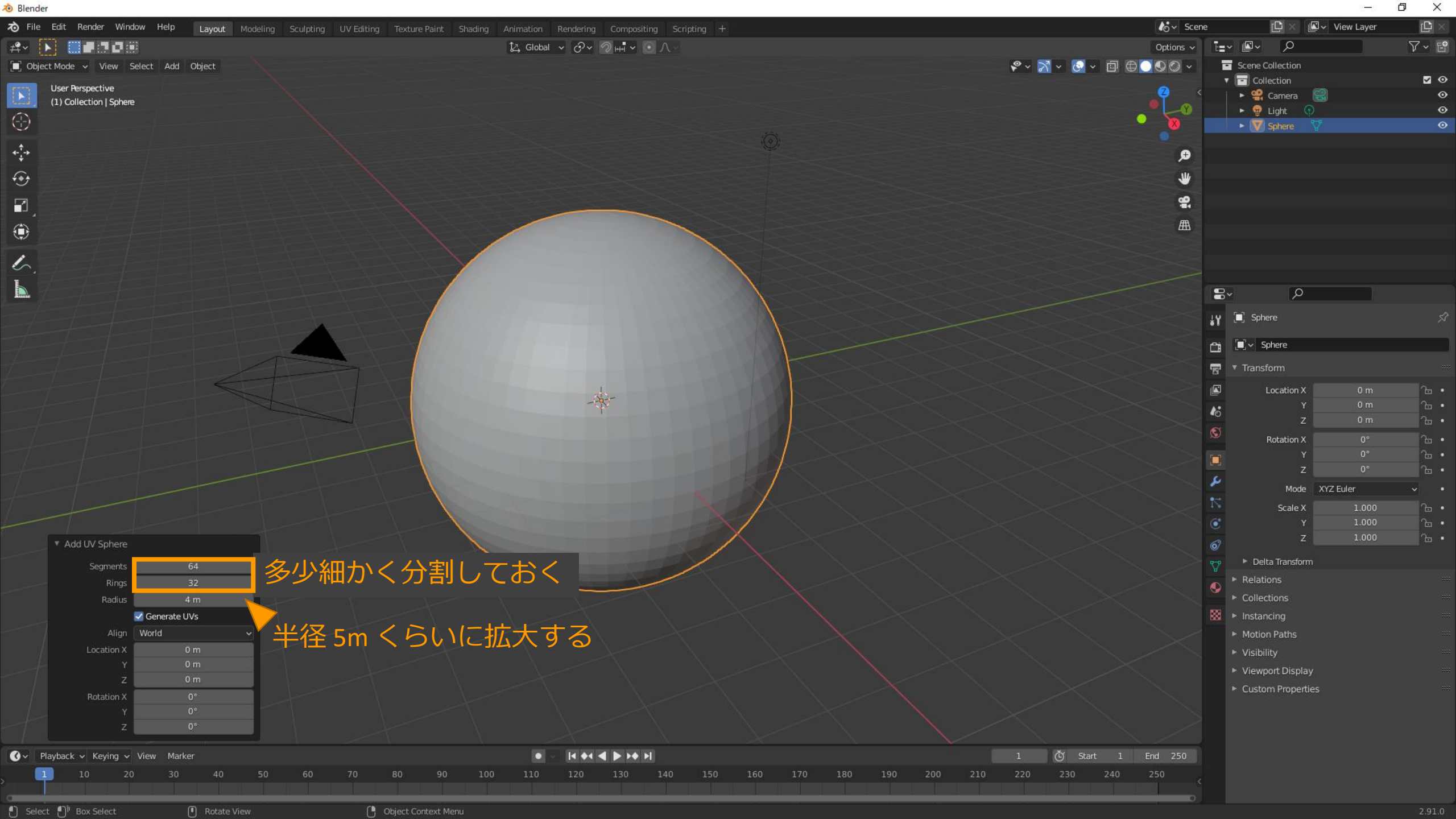


Add メニューの Mesh から UV Sphere を選ぶ



Add UV Sphere の設定を開く

Add UV Sphere



▼ Add UV Sphere

Segments 64

Rings 32

Radius 4 m

☒ Generate UVs

Align World

Location X 0 m

Y 0 m

Z 0 m

Rotation X 0°

Y 0°

Z 0°

多少細かく分割しておく

半径 5m くらいに拡大する

Scene

View Layer

Scene Collection

- Collection
 - Camera
 - Light
 - Sphere

Sphere

▼ Transform

Location X	0 m
Y	0 m
Z	0 m
Rotation X	0°
Y	0°
Z	0°
Mode	XYZ Euler
Scale X	1.000
Y	1.000
Z	1.000

► Delta Transform

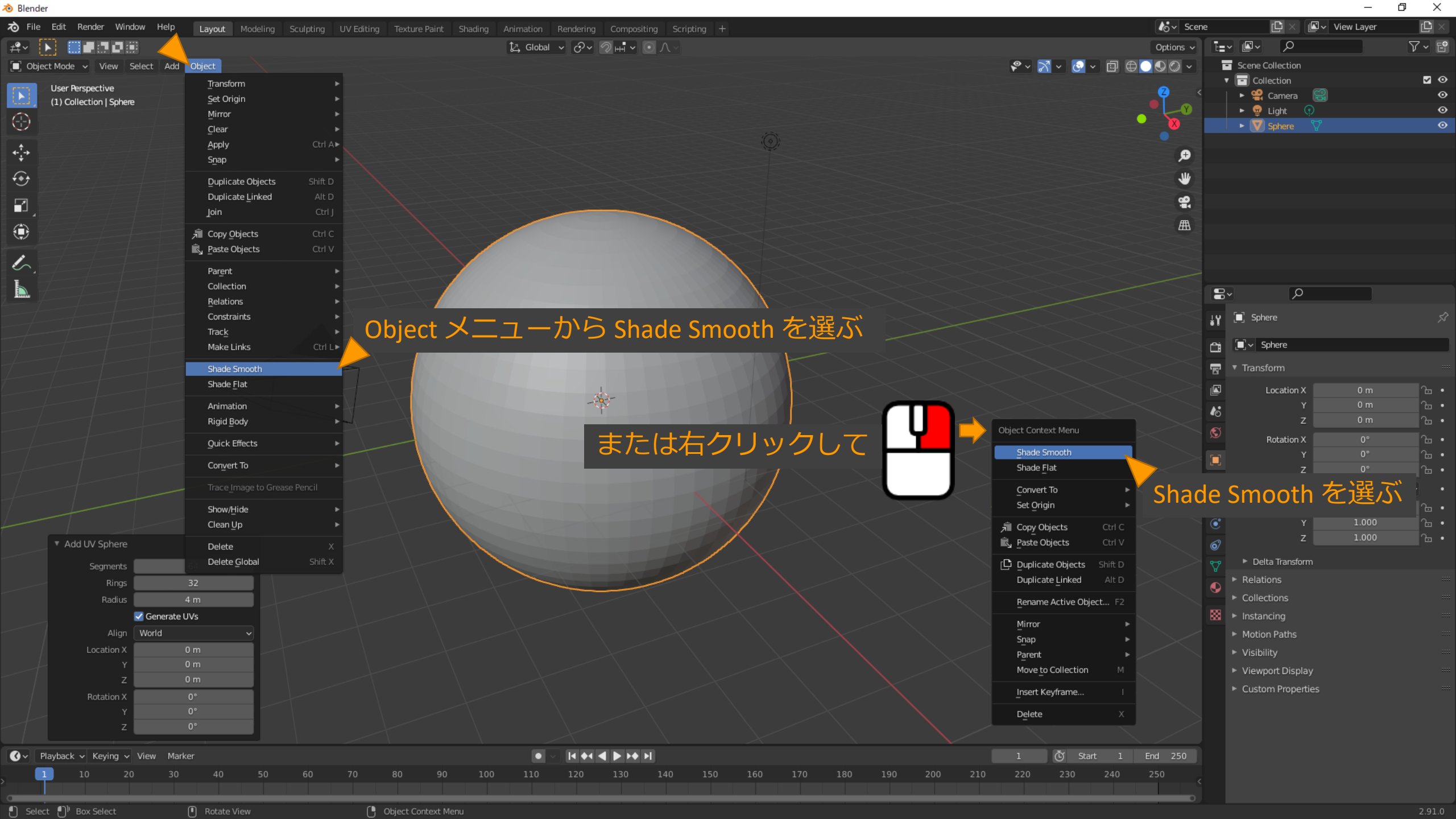
- Relations
- Collections
- Instancing
- Motion Paths
- Visibility
- Viewport Display
- Custom Properties

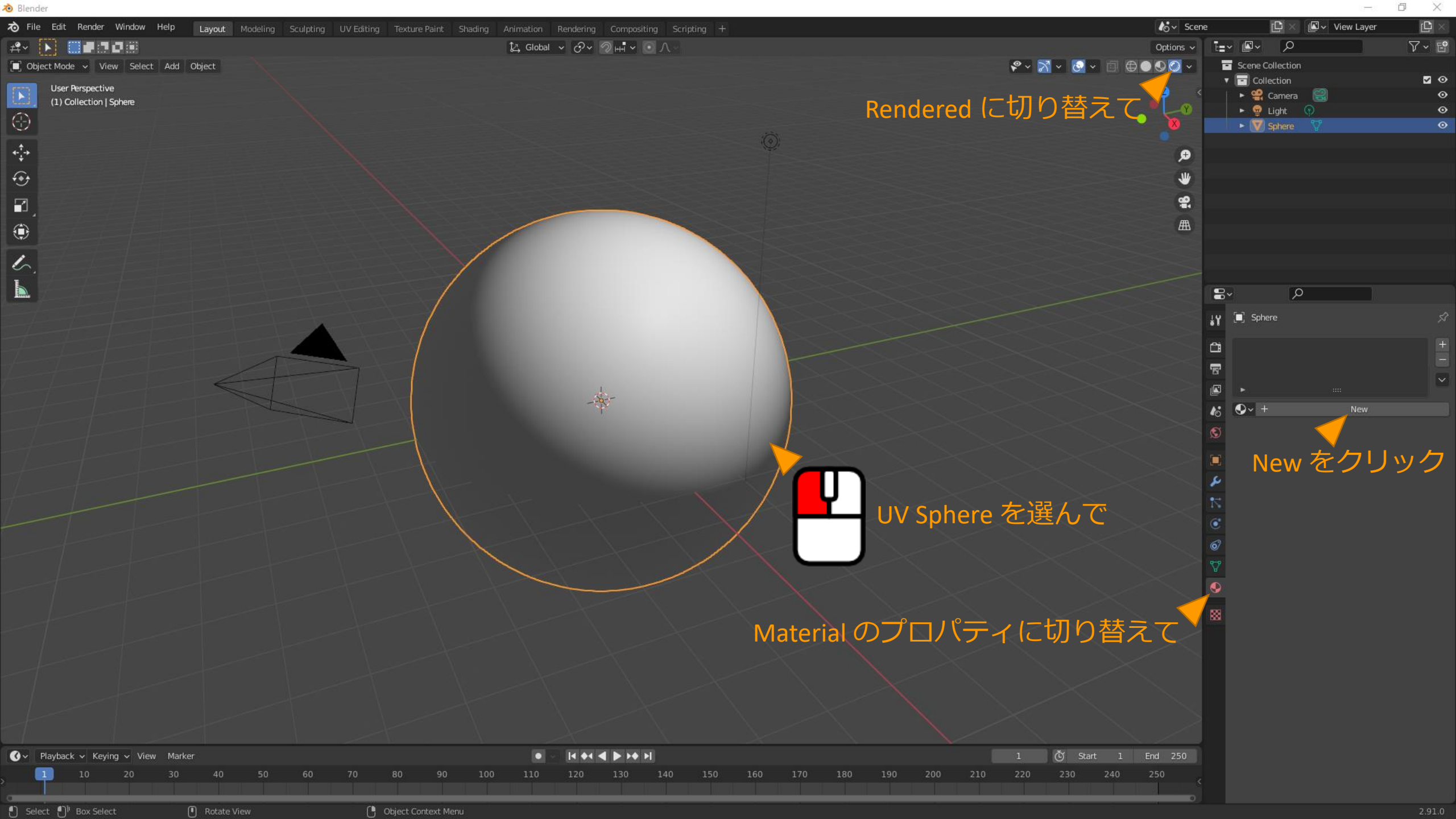
Playback Keying View Marker

1 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250

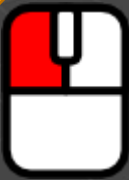
Select Box Select Rotate View Object Context Menu

2.91.0





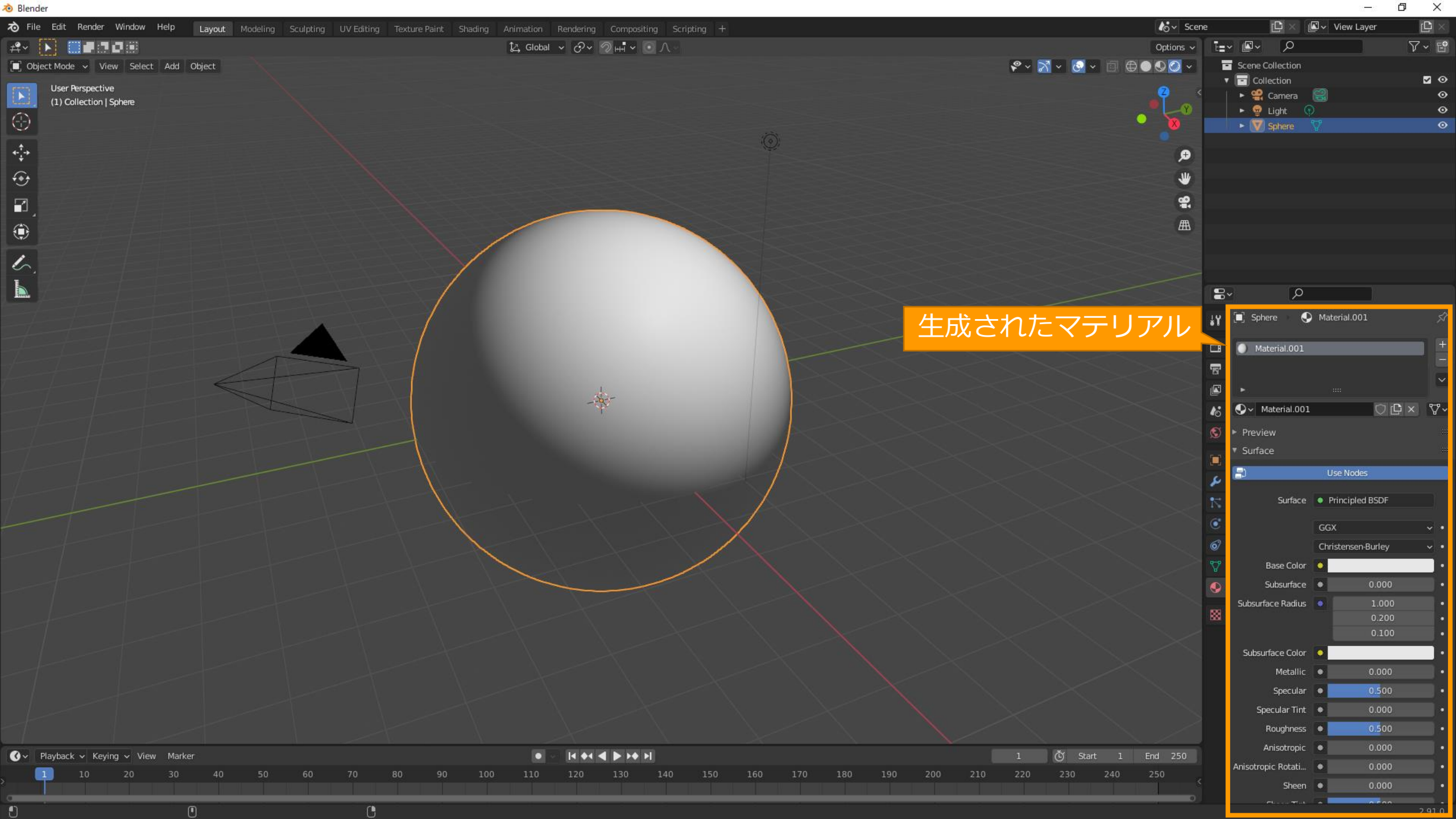
Rendered に切り替えて

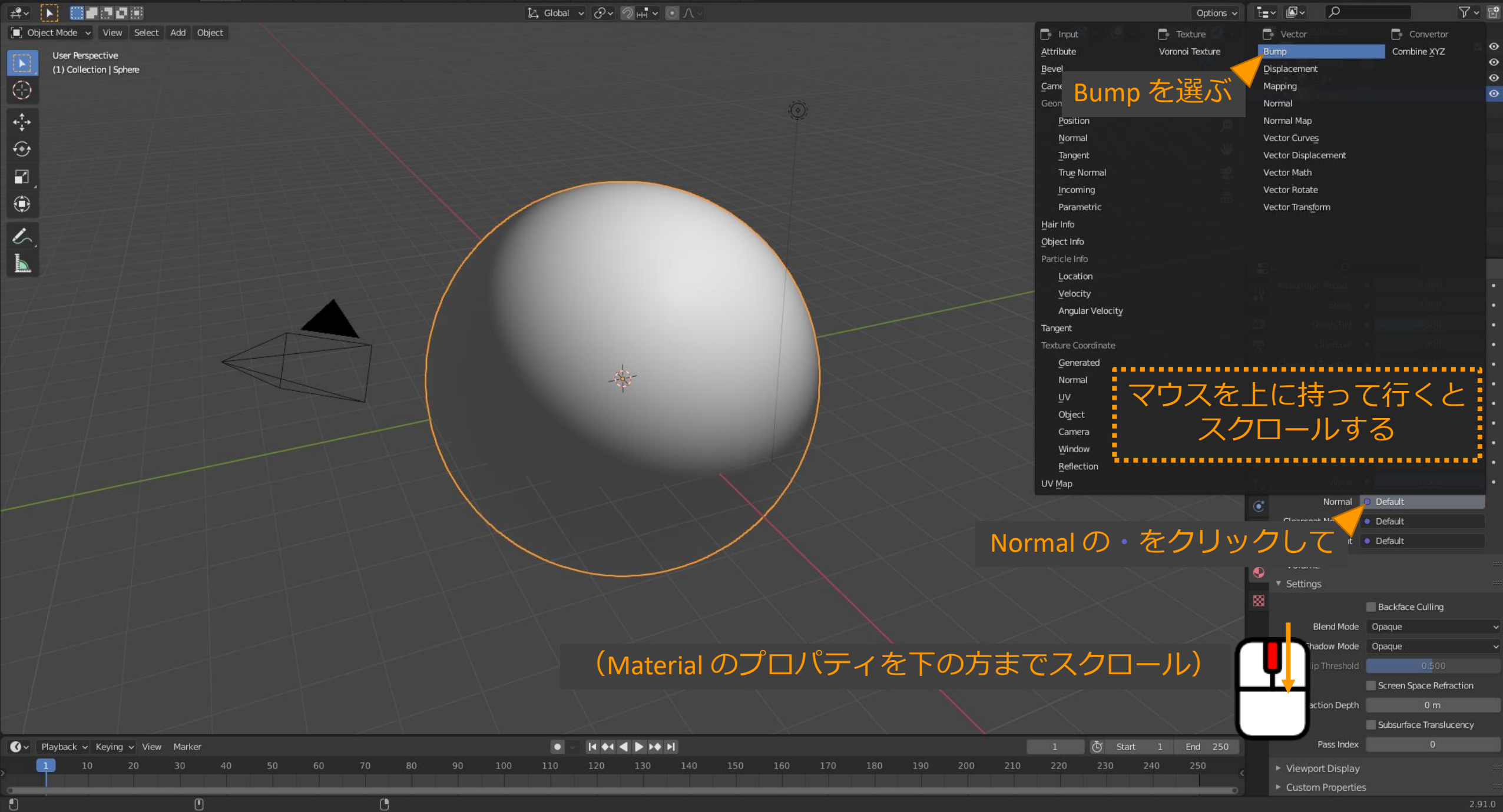


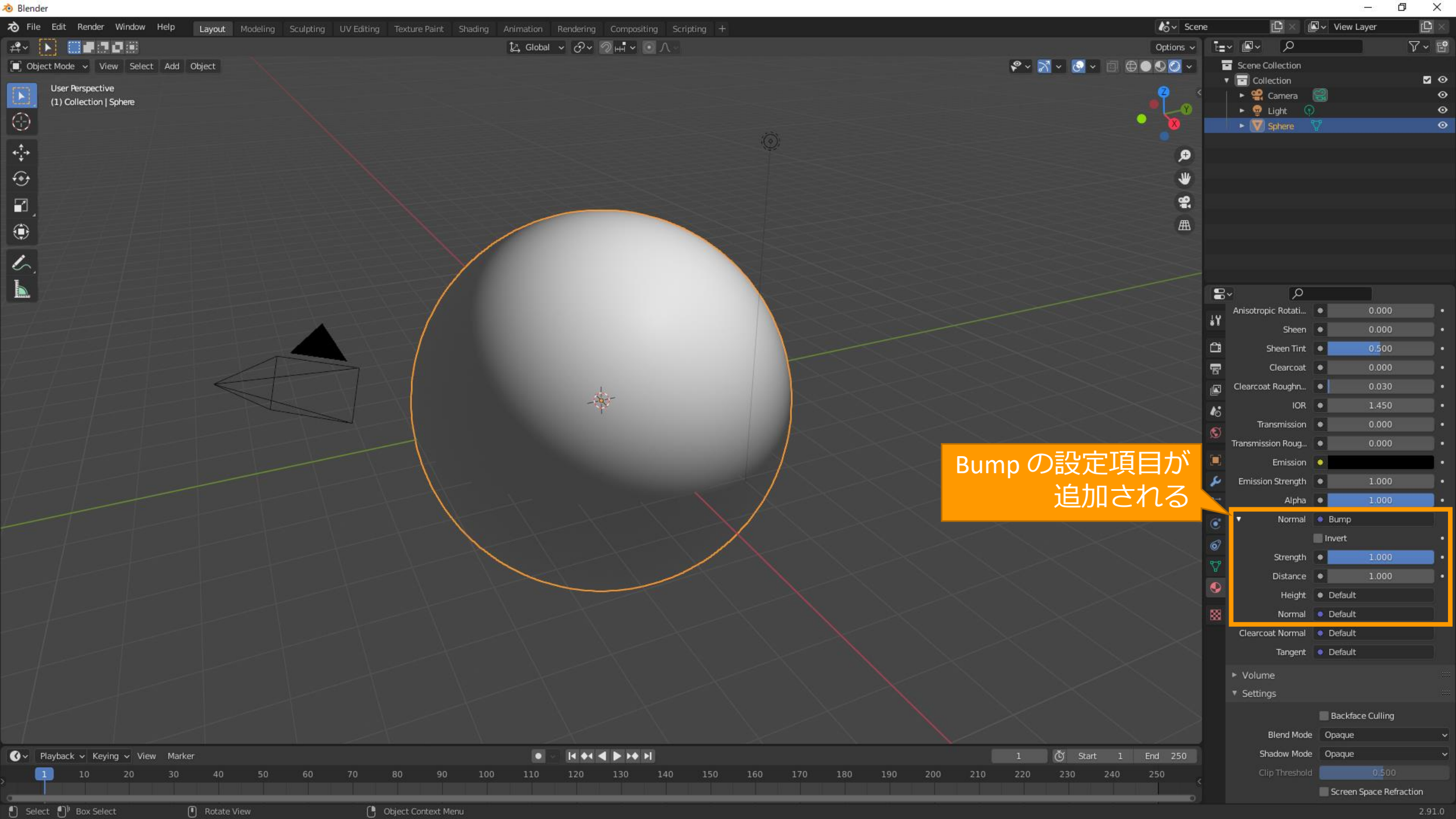
UV Sphere を選んで

Material のプロパティに切り替えて

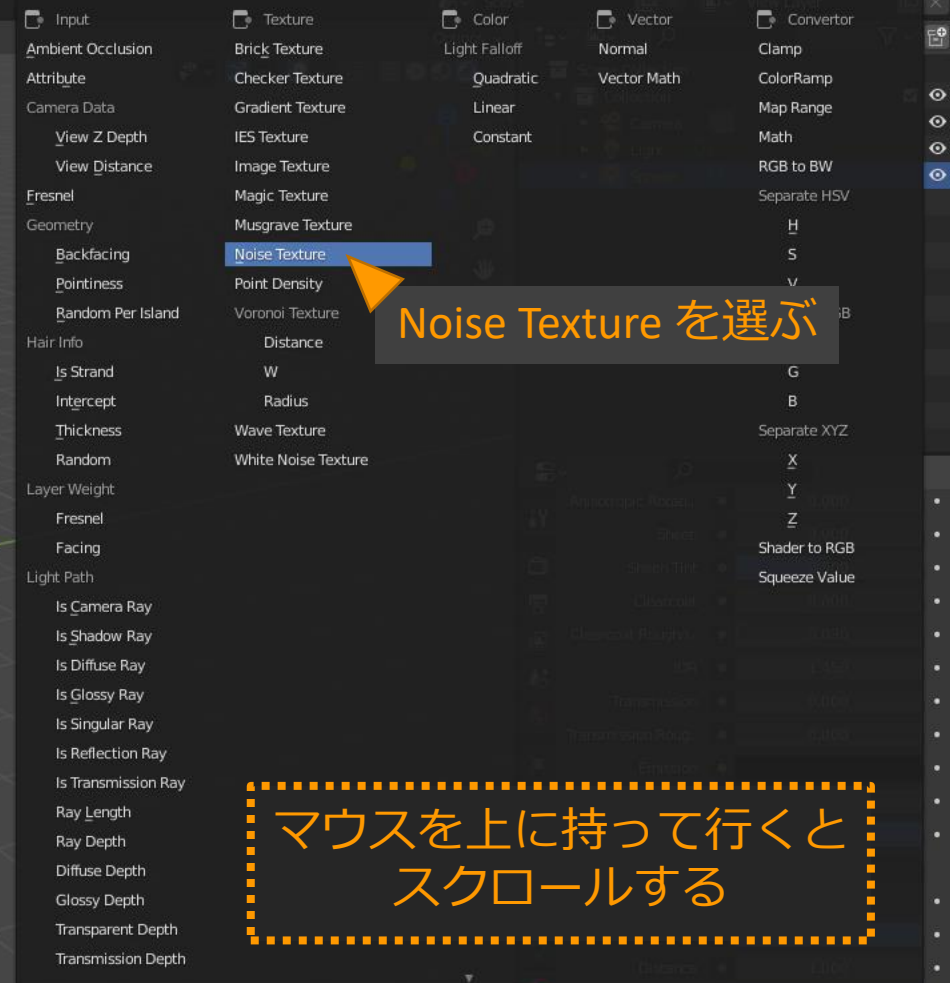
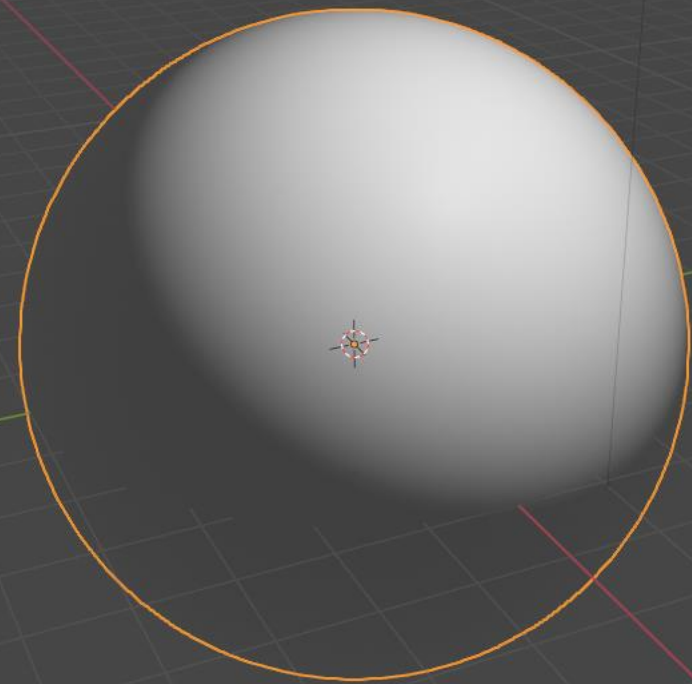
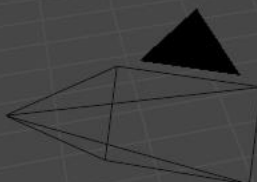
New をクリック





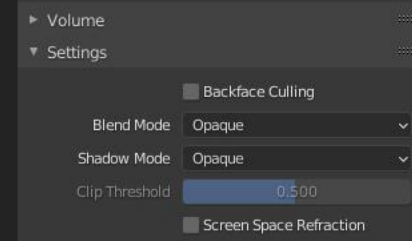


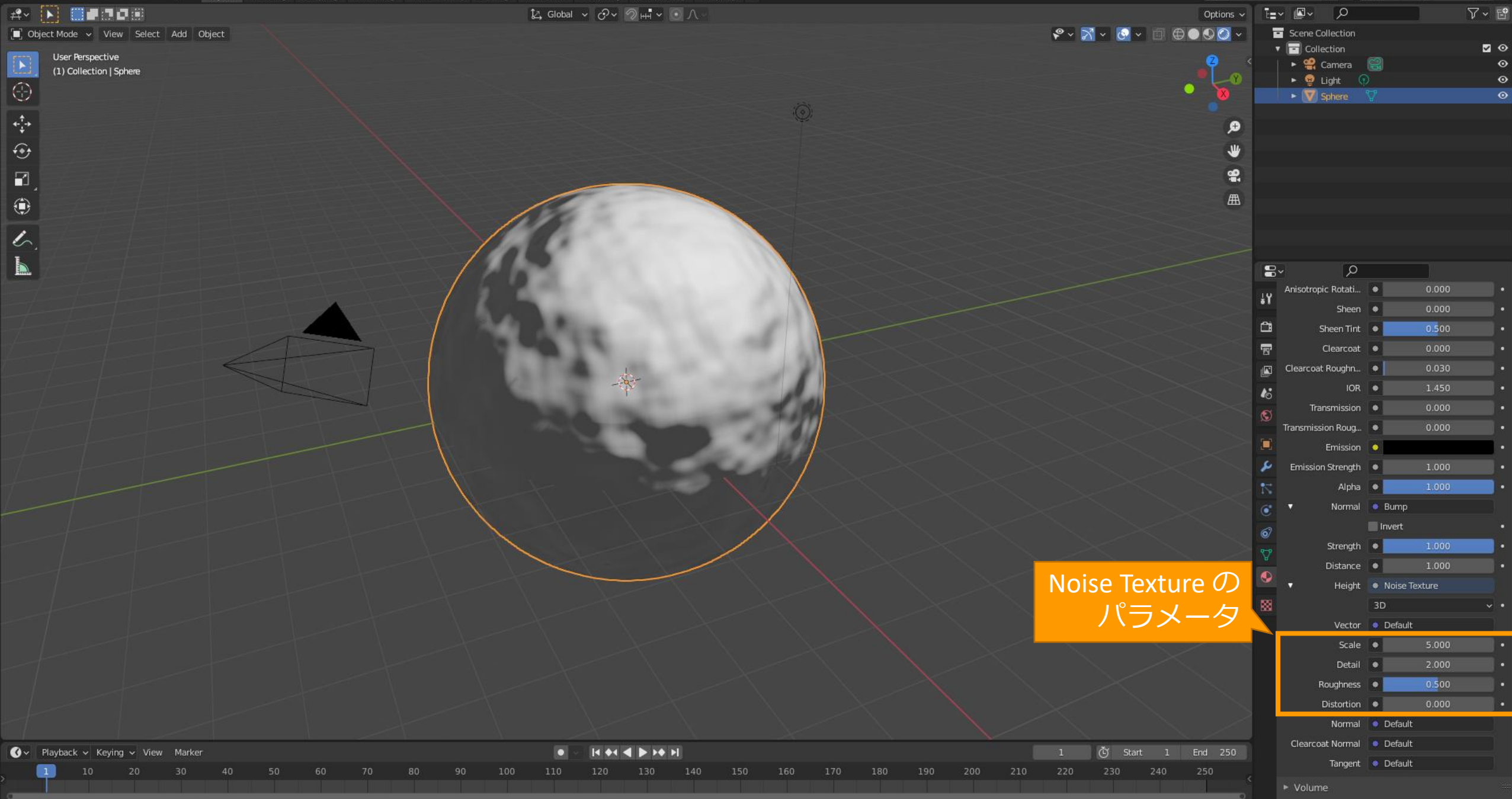
Bump の設定項目が追加される

User Perspective
(1) Collection | Sphere

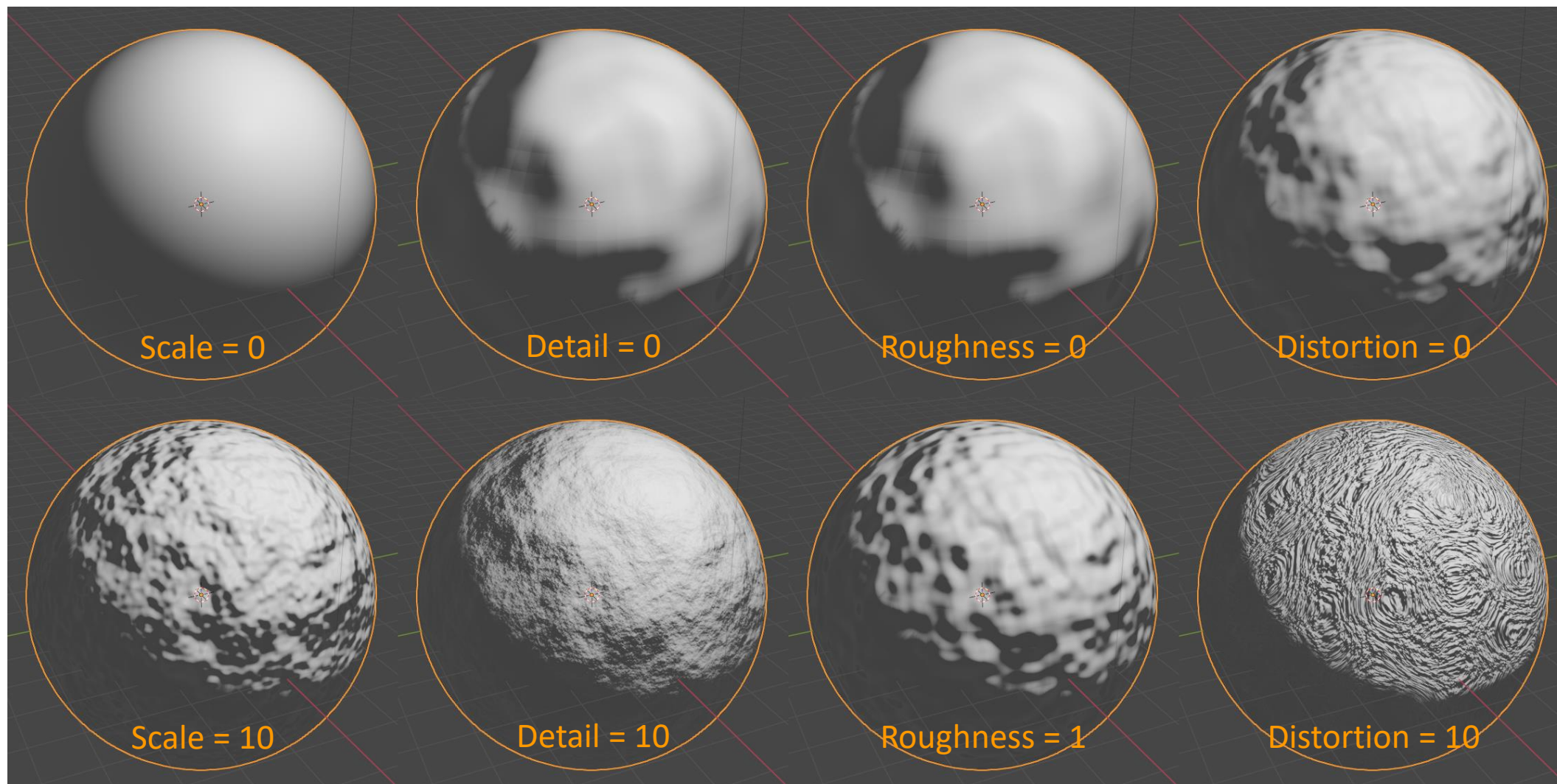
マウスを上を持って行くと
スクロールする

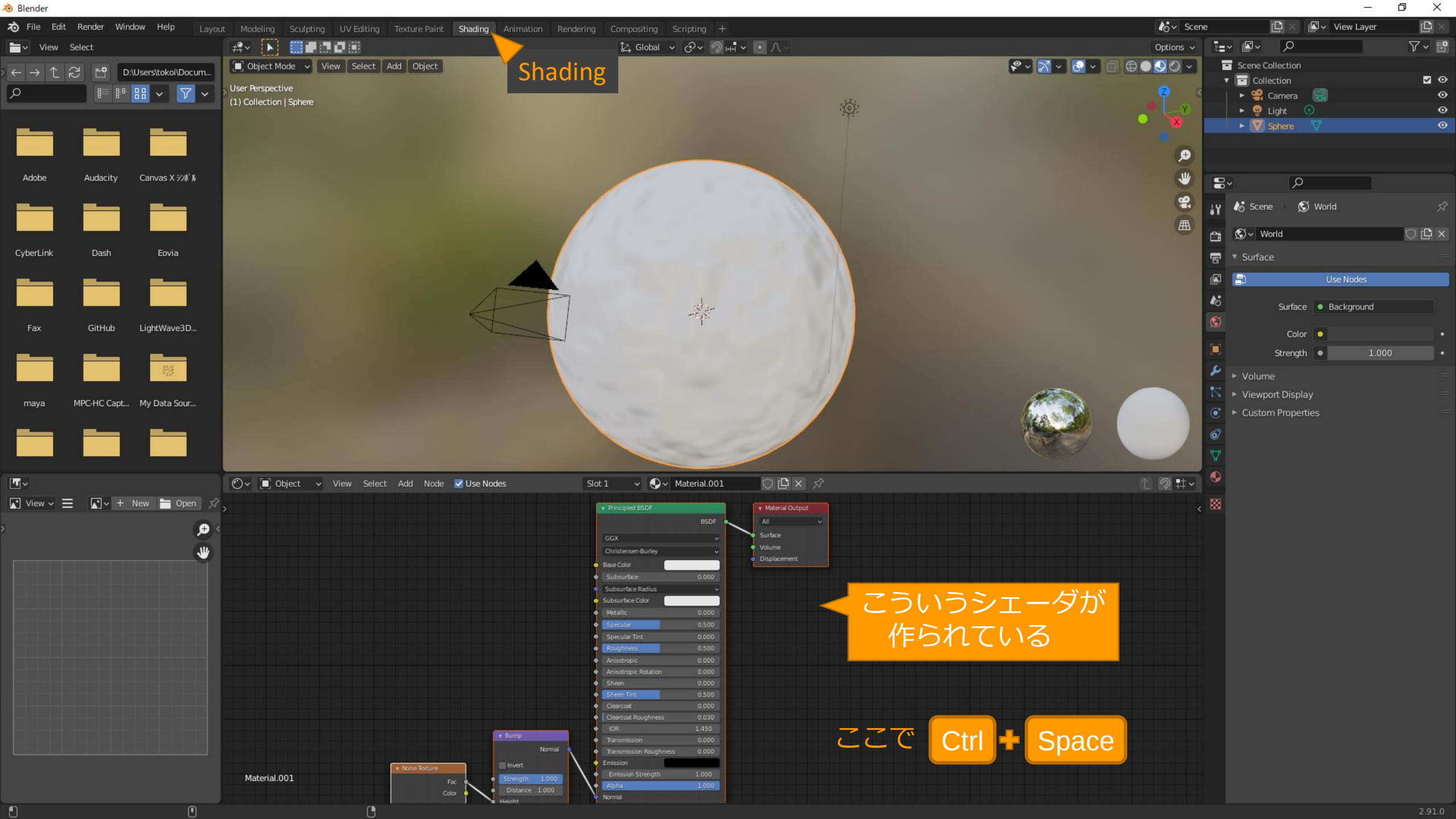
Height の • をクリックして





Noise Textureのパラメータ





Shading

こういうシェーダが
作られている

ここで **Ctrl + Space**

ise Texture

Fac

Material.001 Color

▼ Bump

Normal

☐ Invert

Strength 1.000

Distance 1.000

Height

▼ Principled BSDF

BSDF

GGX ▼

Christensen-Burley ▼

Base Color

Subsurface 0.000

Subsurface Radius ▼

Subsurface Color

Metallic 0.000

Specular 0.500

Specular Tint 0.000

Roughness 0.500

Anisotropic 0.000

Anisotropic Rotation 0.000

Sheen 0.000

Sheen Tint 0.500

Clearcoat 0.000

Clearcoat Roughness 0.030

IOR 1.450

Transmission 0.000

Transmission Roughness 0.000

Emission

Emission Strength 1.000

Alpha 1.000

Normal

▼ Material Output

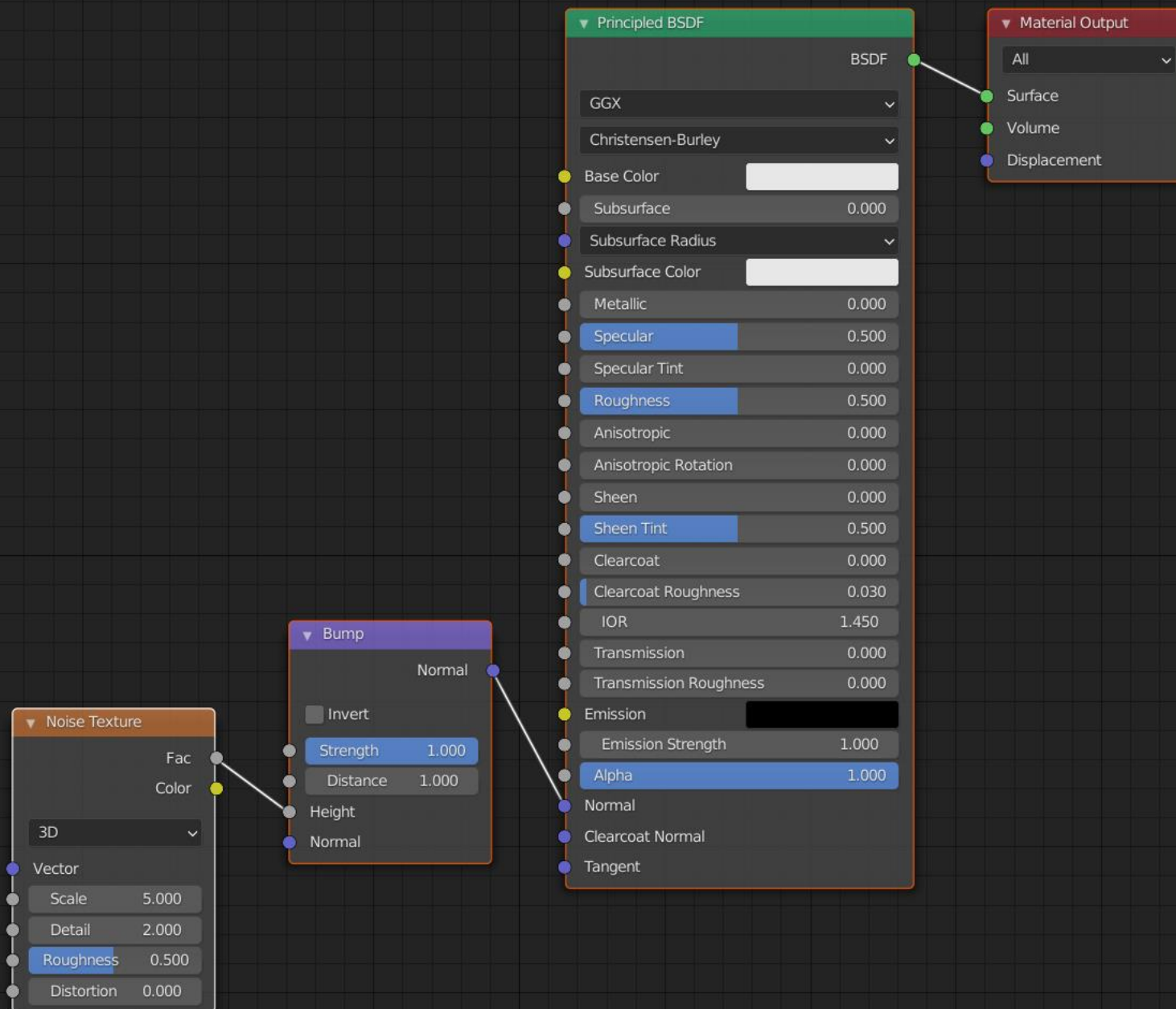
All ▼

Surface

Volume

Displacement

全画面表示



全体が収まるように
縮小・再配置

Search...

- Input
- Output
- Shader
- Texture
- Color
- Vector
- Converter
 - Blackbody
 - Clamp
 - ColorRamp
 - Combine HSV
 - Combine RGB
 - Combine XYZ
 - Map Range
 - Math
 - RGB to BW
 - Separate HSV
 - Separate RGB
 - Separate XYZ
 - Shader to RGB
 - Vector Math
 - Wavelength
- Script
- Group
- Layout

Add メニューの Converter から
Clamp を選ぶ

▼ Principled BSDF

BSDF

GGX

Christensen-Burley

Base Color

Specular 0.500

Specular Tint 0.000

Roughness 0.500

Anisotropic 0.000

Anisotropic Rotation 0.000

Sheen 0.000

Sheen Tint 0.500

Clearcoat 0.000

Clearcoat Roughness 0.030

IOR 1.450

Transmission 0.000

Transmission Roughness 0.000

Emission

Emission Strength 1.000

Alpha 1.000

Normal

Clearcoat Normal

Tangent

▼ Material Output

All

Surface

Volume

Displacement

▼ Noise Texture

Fac

Color

3D

Vector

Scale 5.000

Detail 2.000

Roughness 0.500

Distortion 0.000

▼ Bump

Normal

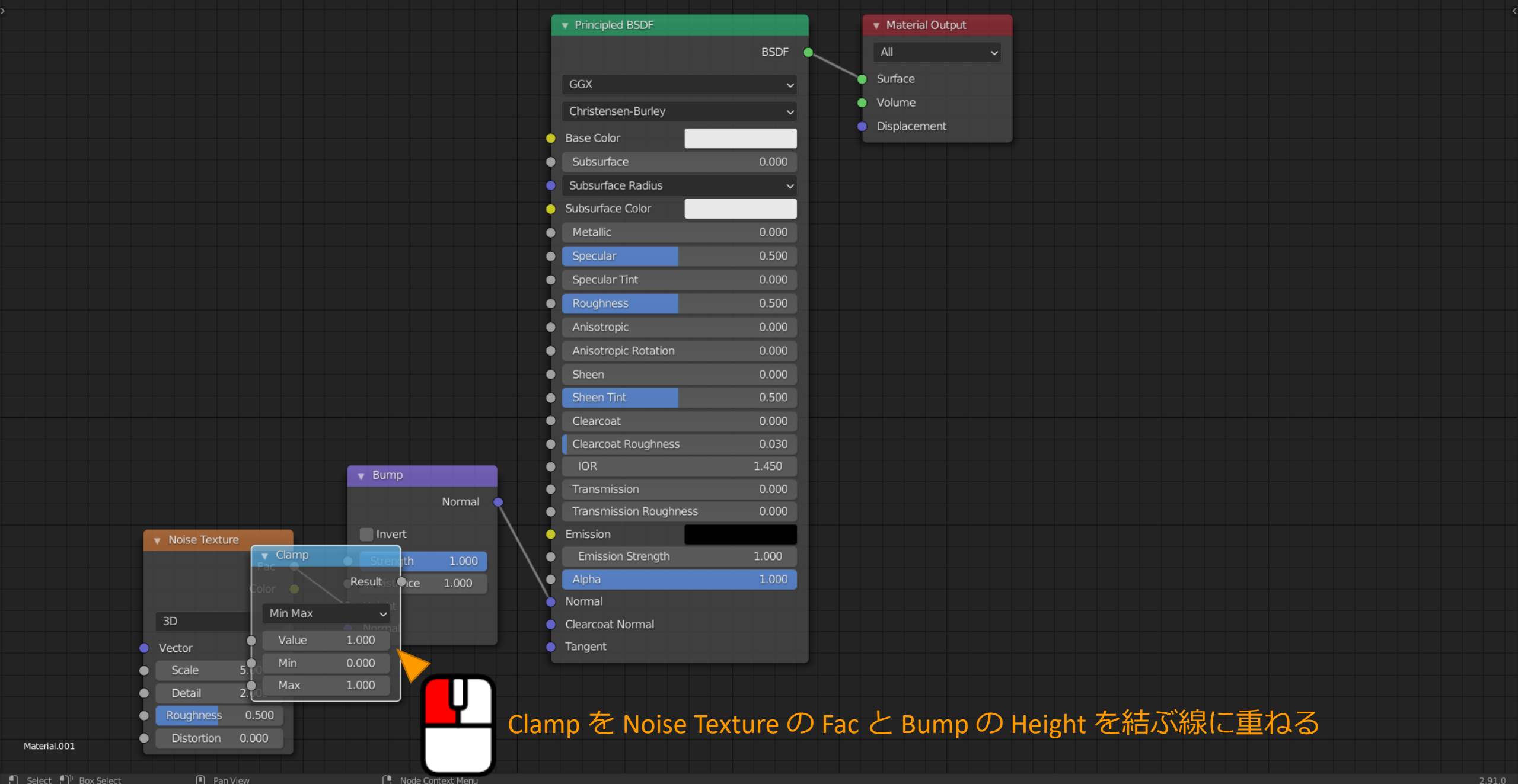
Invert

Strength 1.000

Distance 1.000

Height

Normal



Clamp を Noise Texture の Fac と Bump の Height を結ぶ線に重ねる

Fac と Height の間に
Clamp が割って入る

▼ Noise Texture

Fac
Color

3D

Vector

Scale 5.000

Detail 2.000

Roughness 0.500

Distortion 0.000

▼ Clamp

Result

Min Max

Value

Min 0.000

Max 1.000

▼ Bump

Normal

☐ Invert

Strength 1.000

Distance 1.000

Height

Normal

▼ Principled BSDF

BSDF

GGX

Christensen-Burley

Base Color

Subsurface 0.000

Subsurface Radius

Subsurface Color

Metallic 0.000

Specular 0.500

Specular Tint 0.000

Roughness 0.500

Anisotropic 0.000

Anisotropic Rotation 0.000

Sheen 0.000

Sheen Tint 0.500

Clearcoat 0.000

Clearcoat Roughness 0.030

IOR 1.450

Transmission 0.000

Transmission Roughness 0.000

Emission

Emission Strength 1.000

Alpha 1.000

Normal

Clearcoat Normal

Tangent

▼ Material Output

All

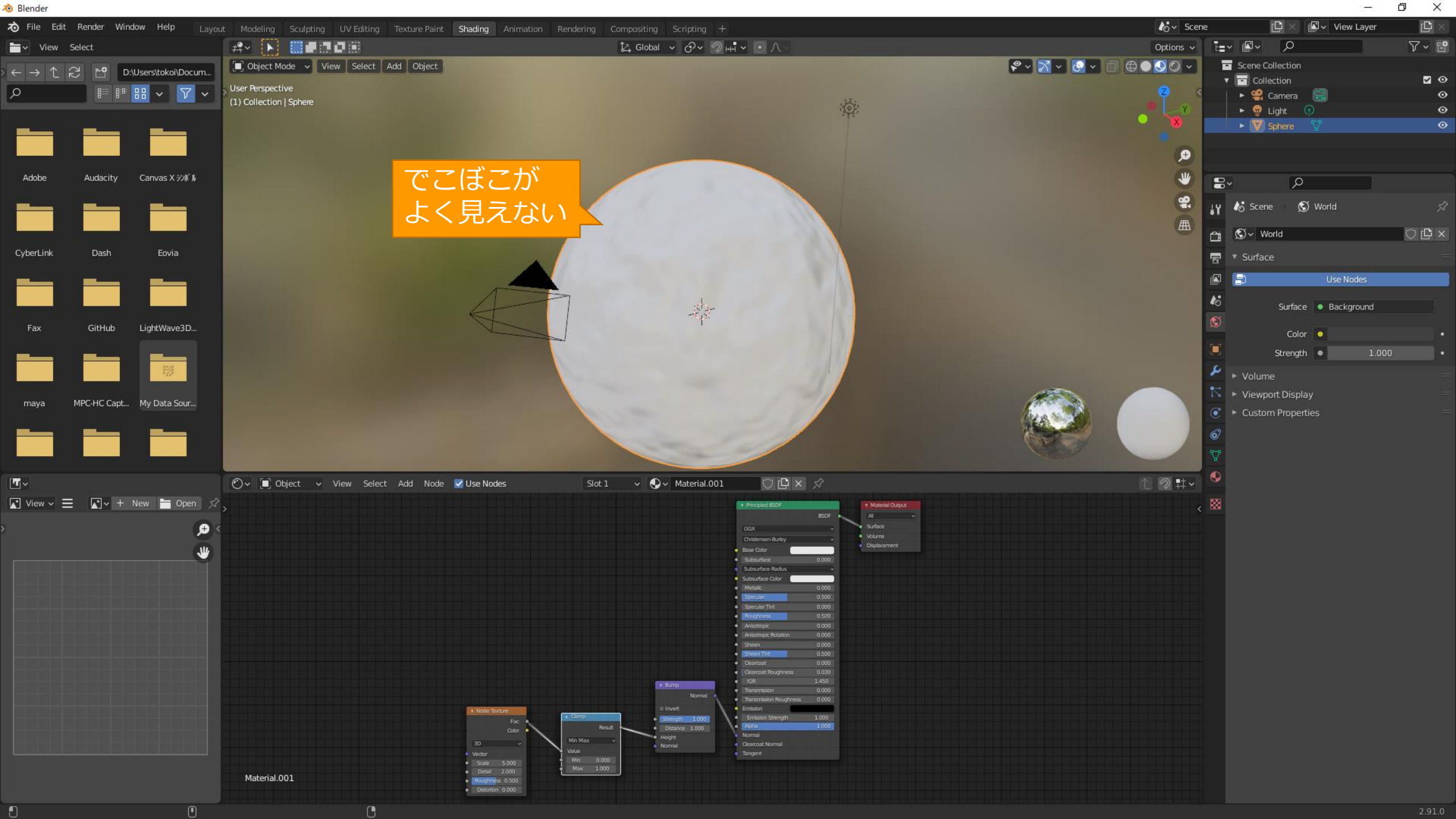
Surface

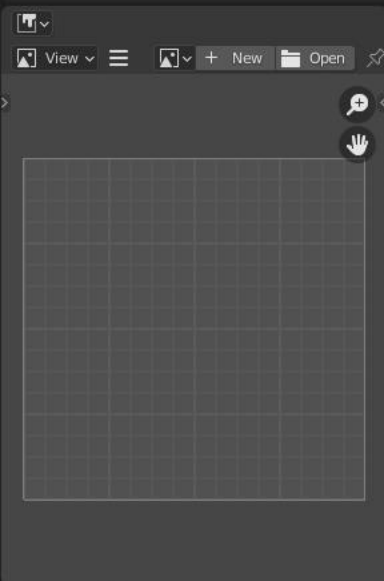
Volume

Displacement

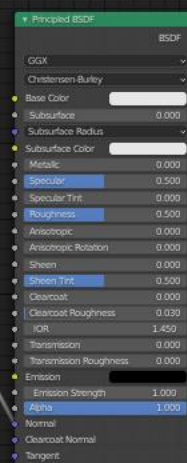
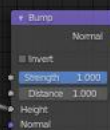
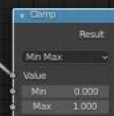
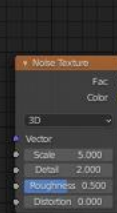
このあともう一度

Ctrl + Space





Material.001



Scene Lights にチェック☑

Strength を減じて
暗くする

Viewport Shading

Viewport Shading

Lighting

☒ Scene Lights☐ Scene World

Rotation 0°

Strength 0.100

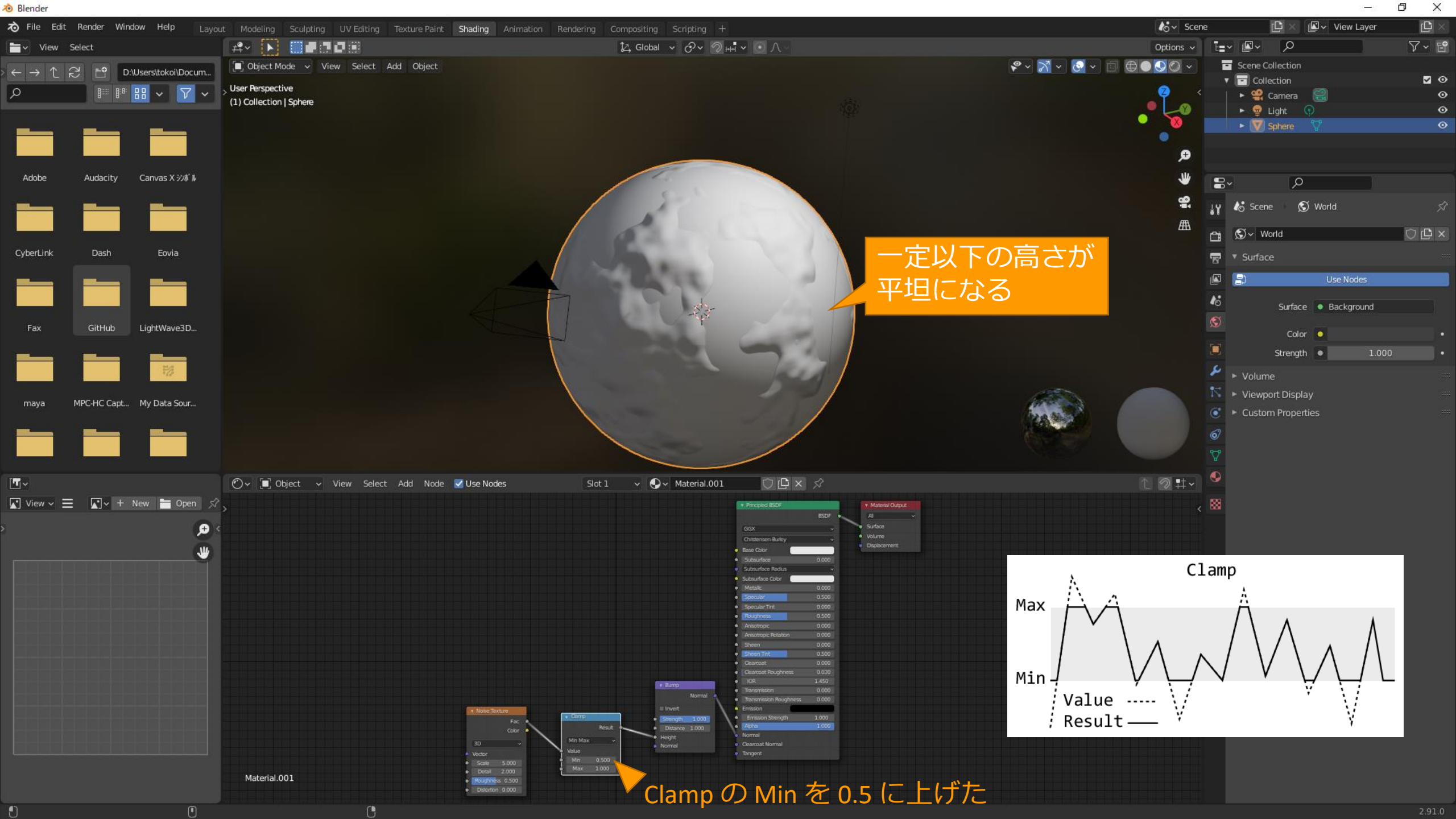
World Opacity 1.000

Blur 0.50

Render Pass Combined

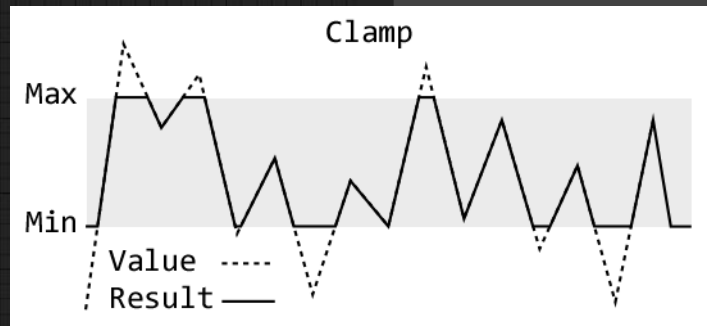
Strength 1.000

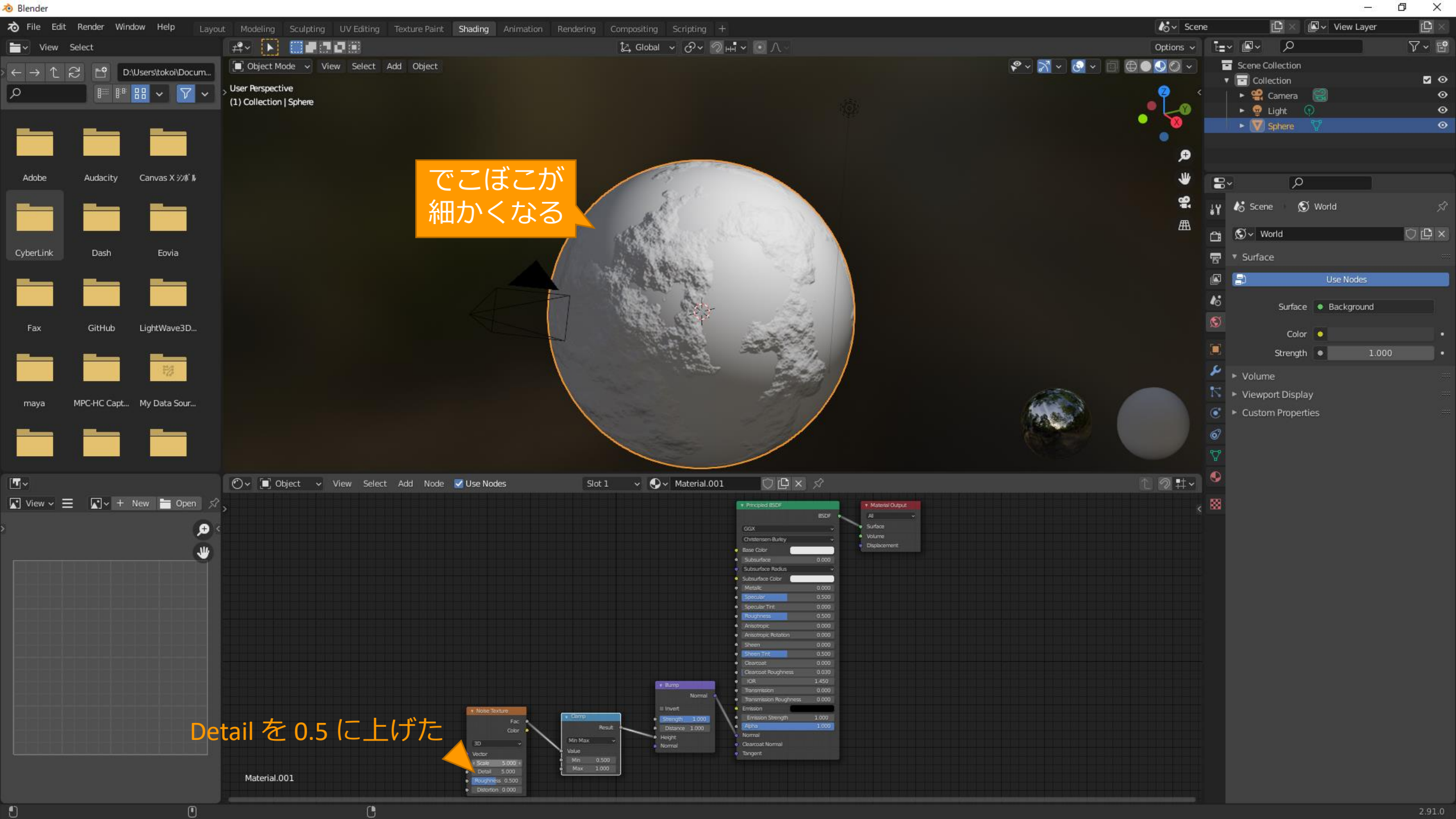
Volume
Viewport Display
Custom Properties



一定以下の高さが
平坦になる

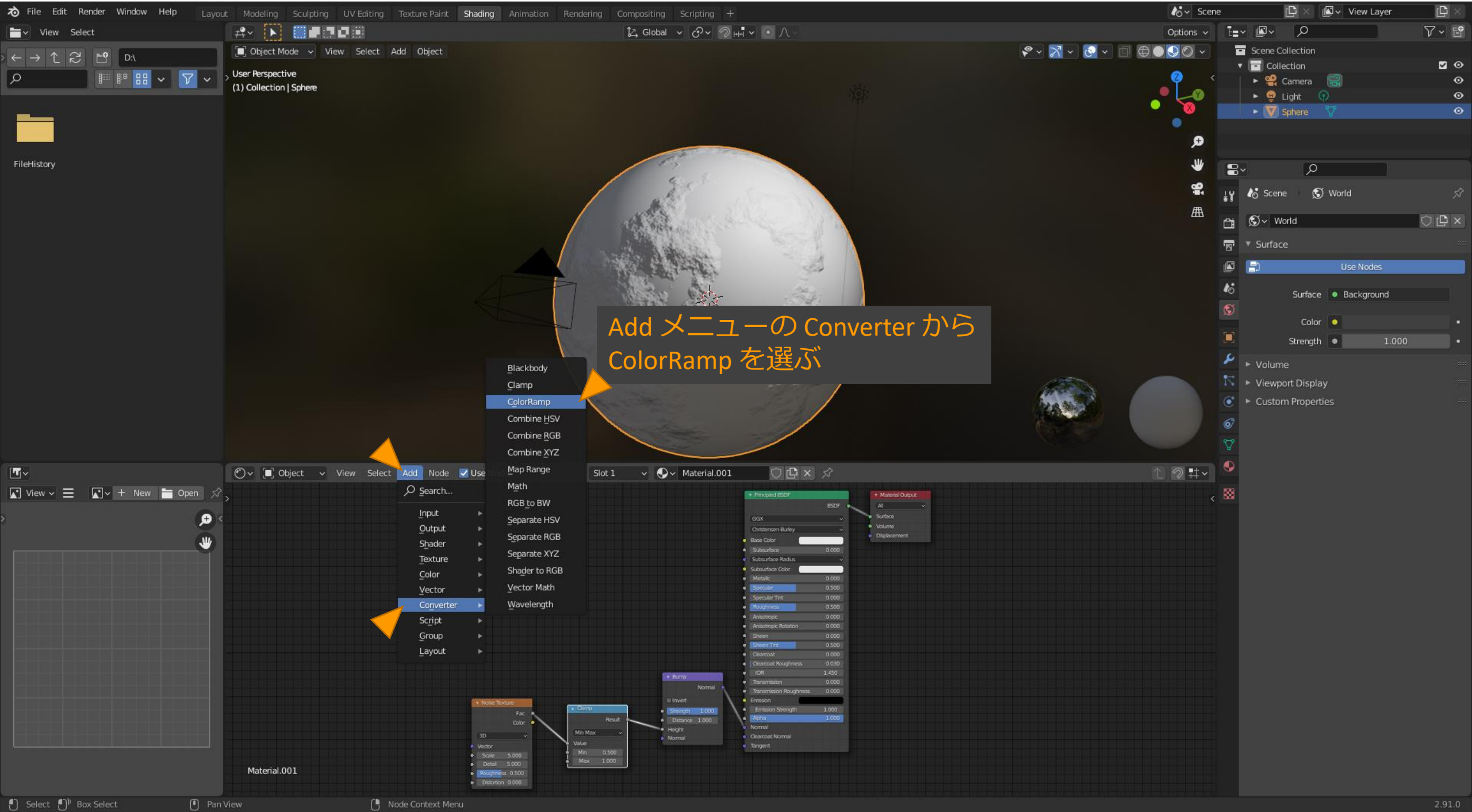
Clamp の Min を 0.5 に上げた

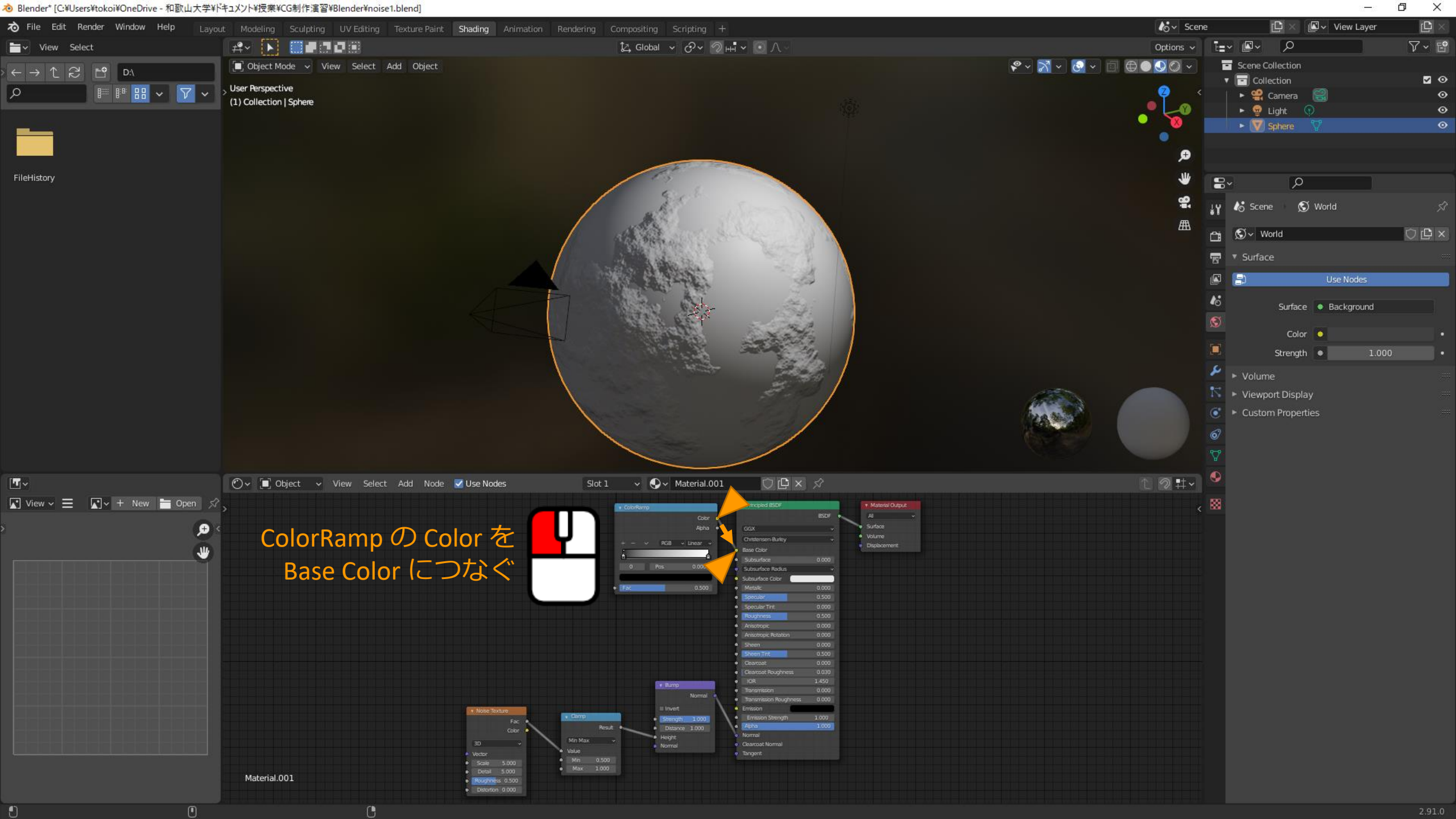




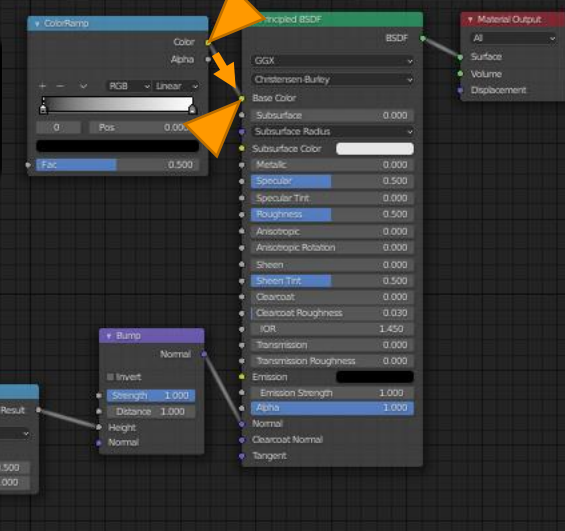
でこぼこが
細くなる

Detail を 0.5 に上げた



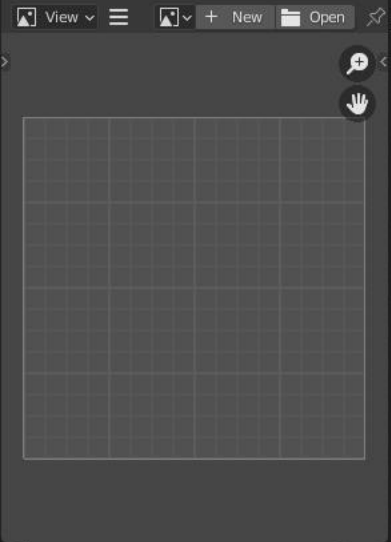


ColorRamp の Color を
Base Color につなぐ



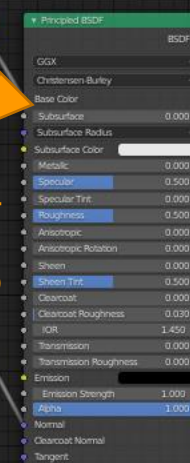
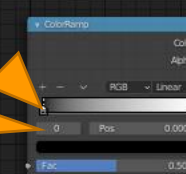
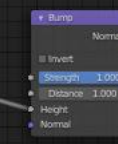
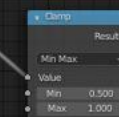
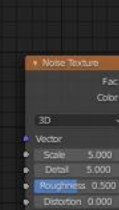


FileHistory



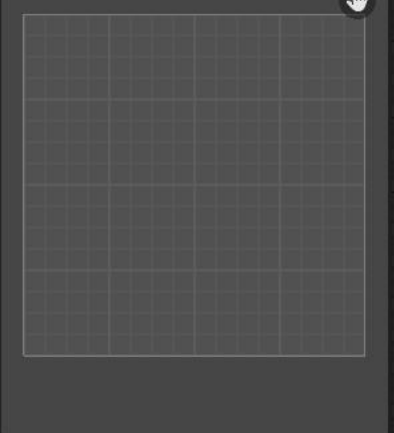
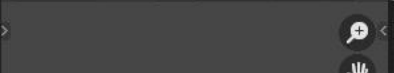
Material.001

0 は左側

左側のハンドルを選択して
Pos を 0.5 にする

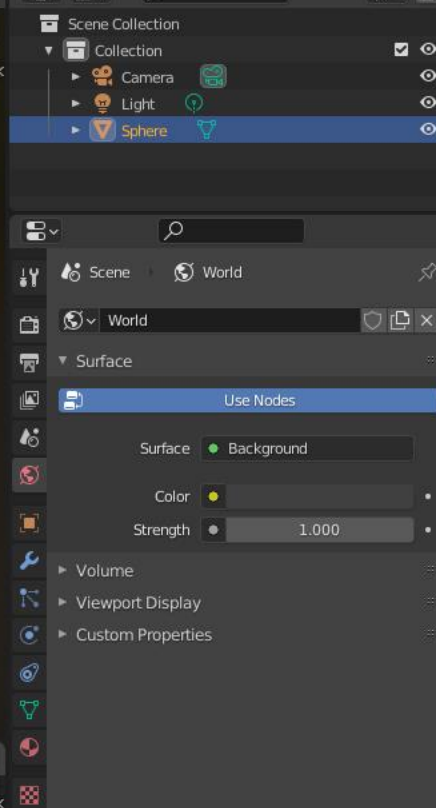
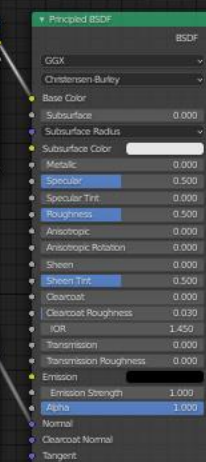
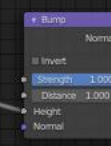
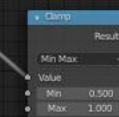
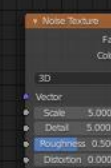


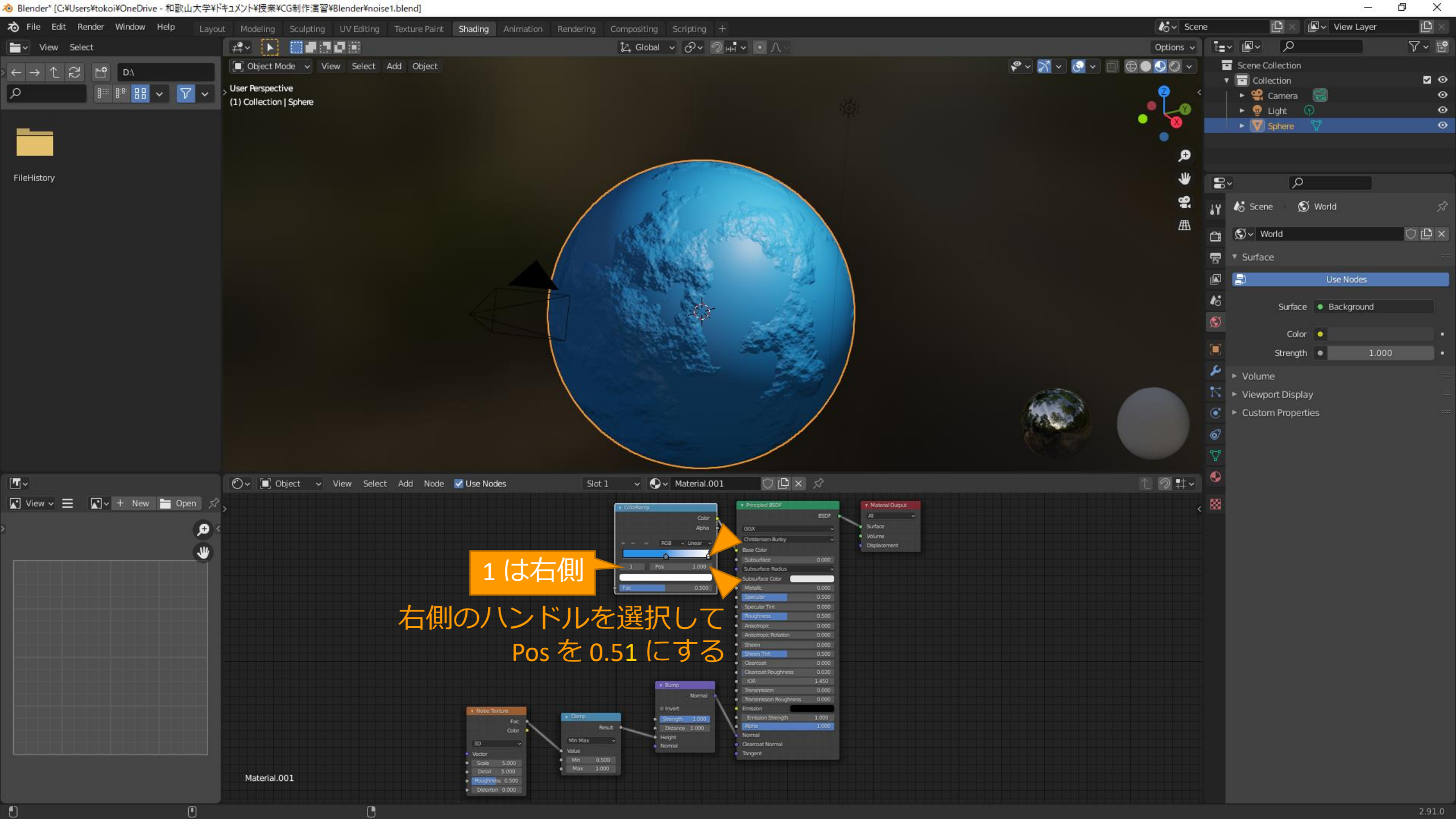
FileHistory



Material.001

色を選択する



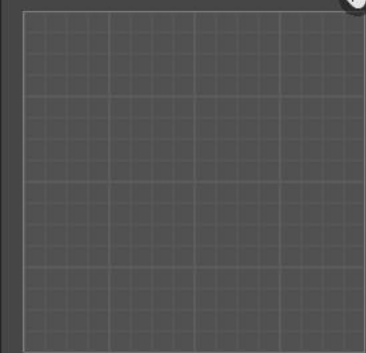


1 は右側

右側のハンドルを選択して
Pos を 0.51 にする

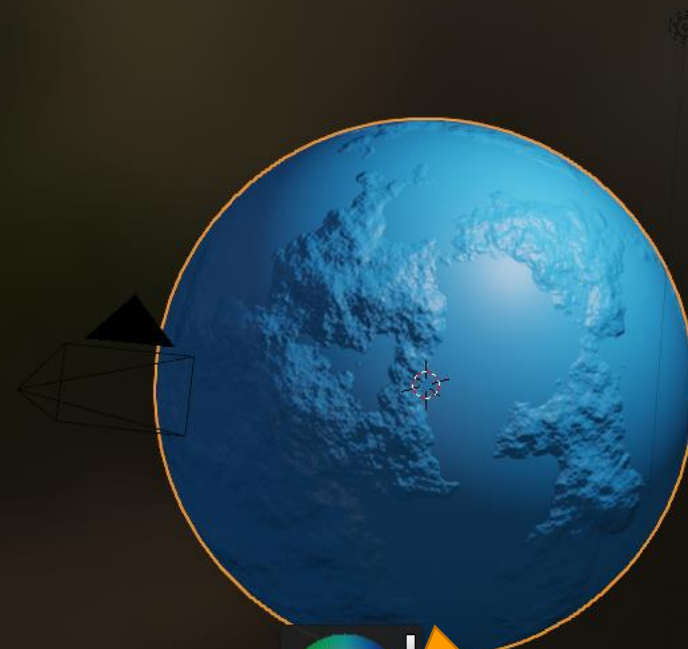
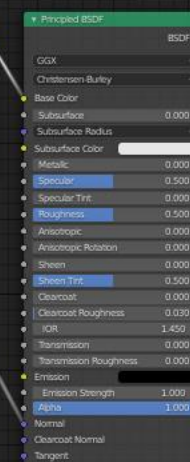
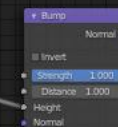
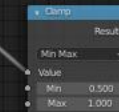
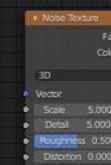


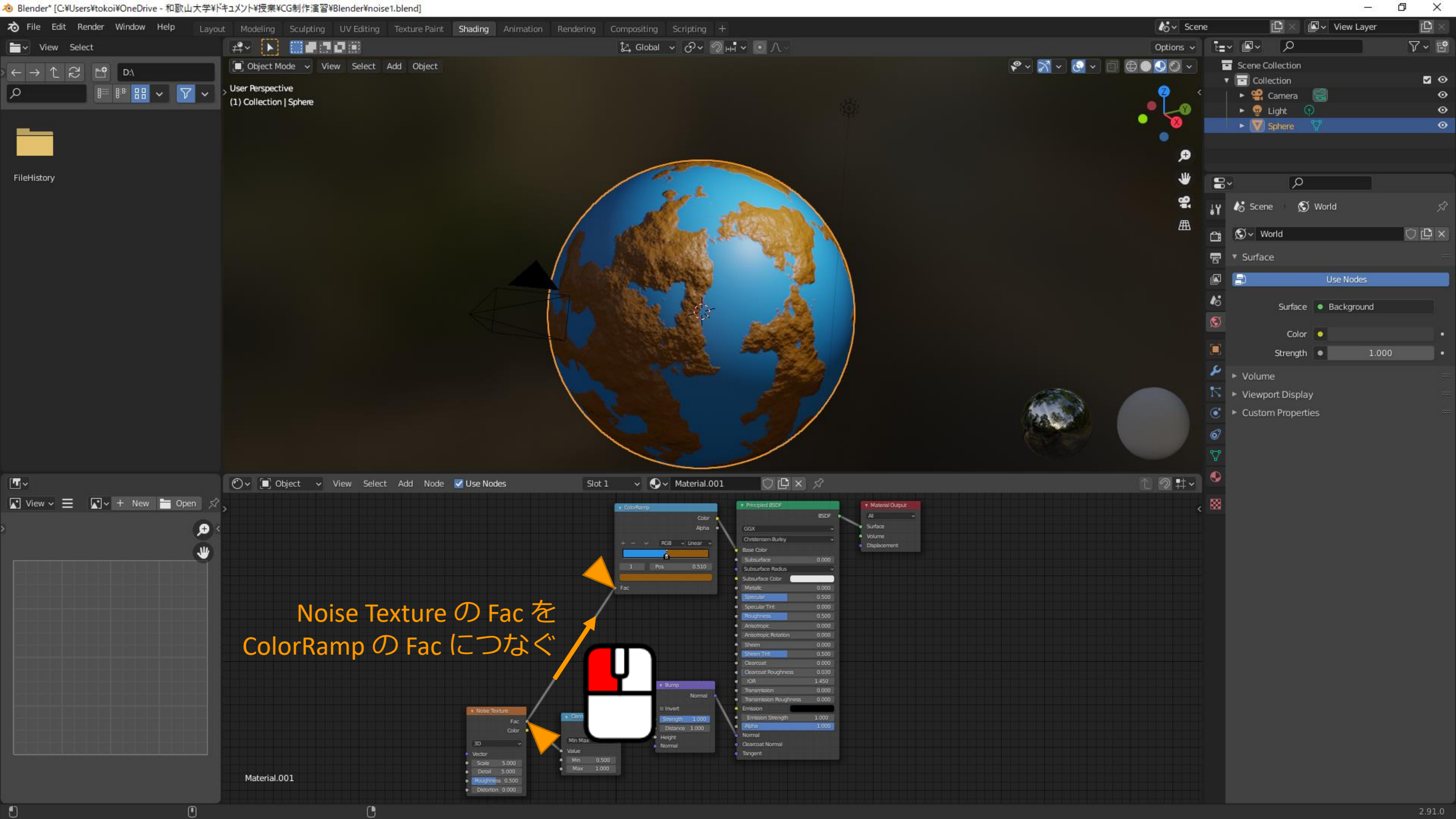
FileHistory



Material.001

色を選択する



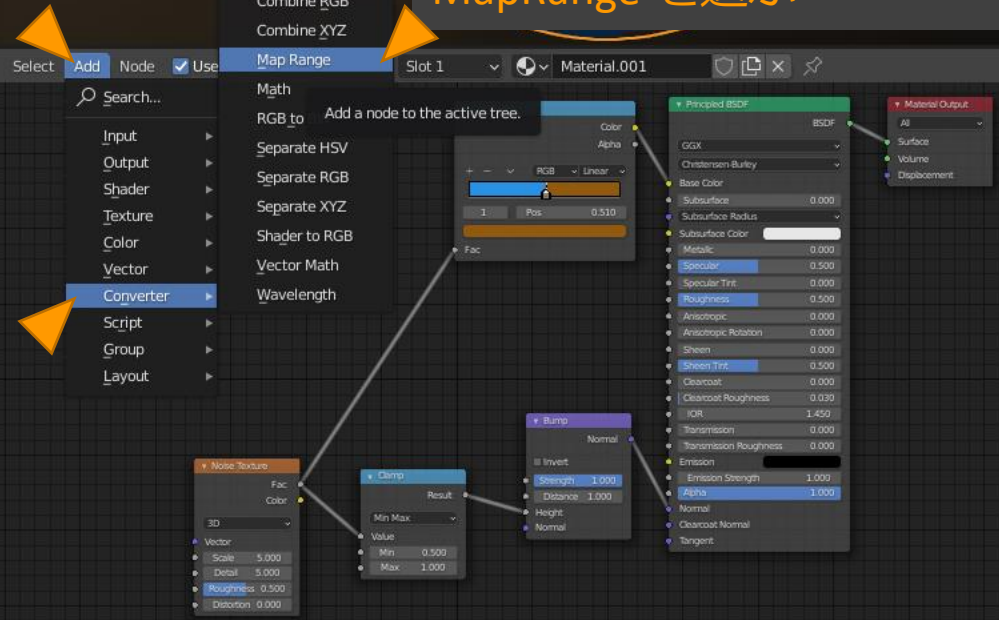


Noise Texture の Fac を
ColorRamp の Fac につなぐ

Material.001

どちらの色の領域も
Roughness が同じなので

Add メニューの Converter から
MapRange を選ぶ





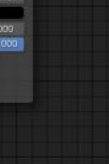
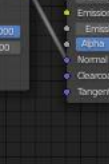
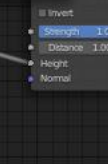
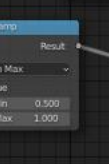
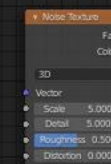
FileHistory

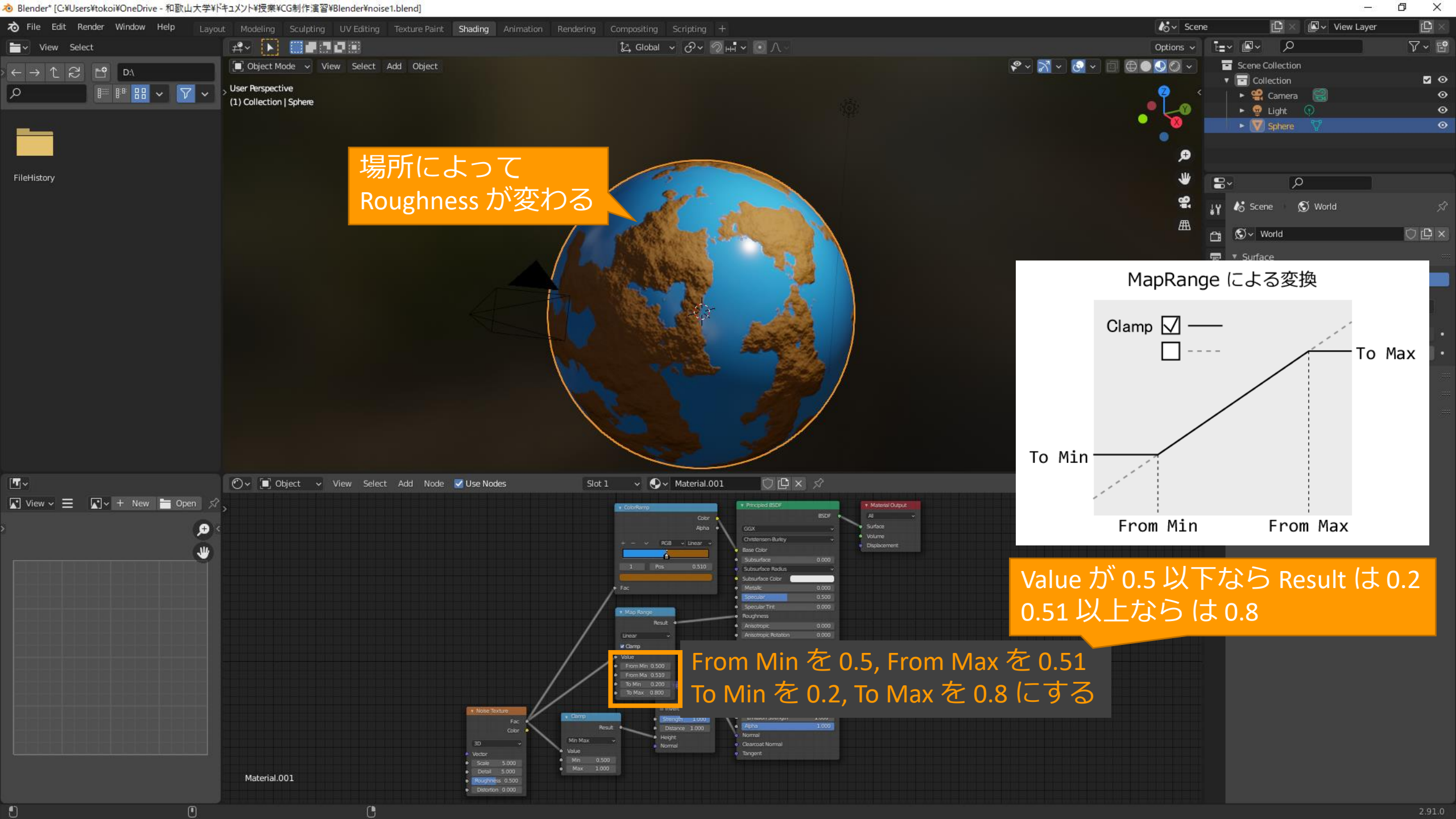


NoiseTexture の Fac を
MapRange の Value につなぎ
MapRange の Result を
Roughness につなぐ

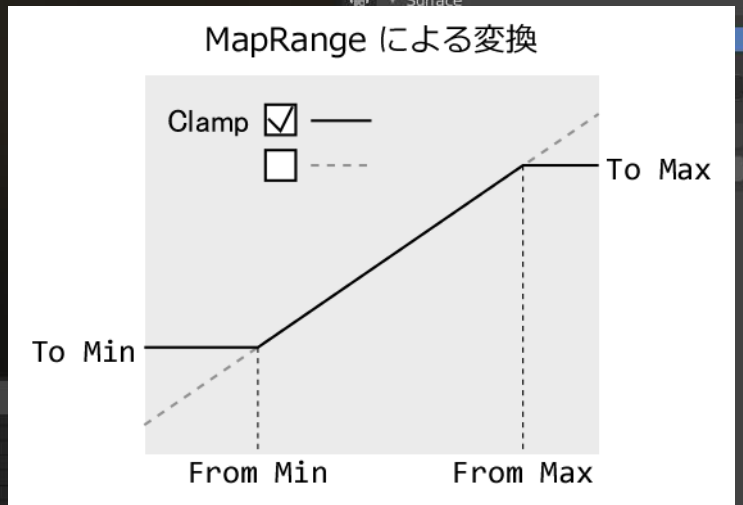


Material.001



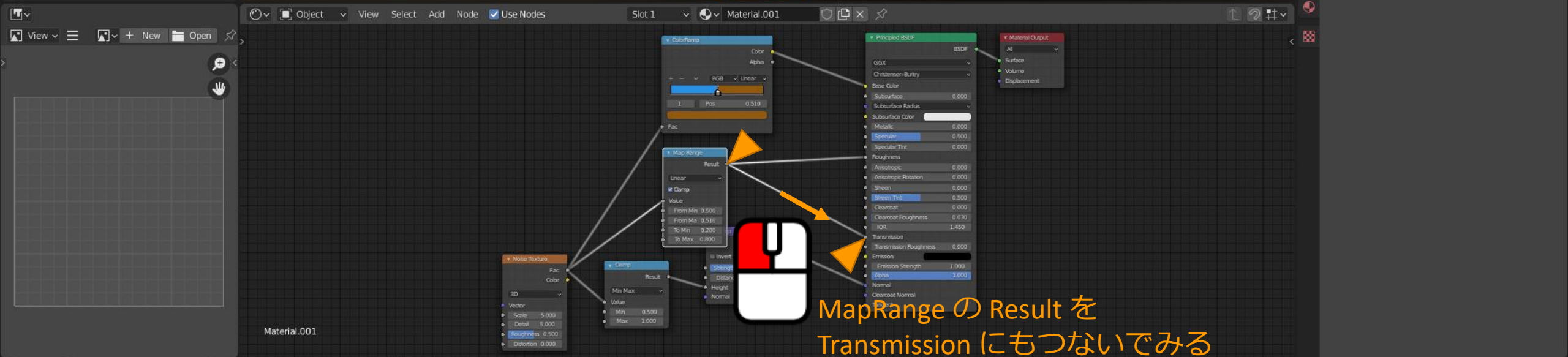
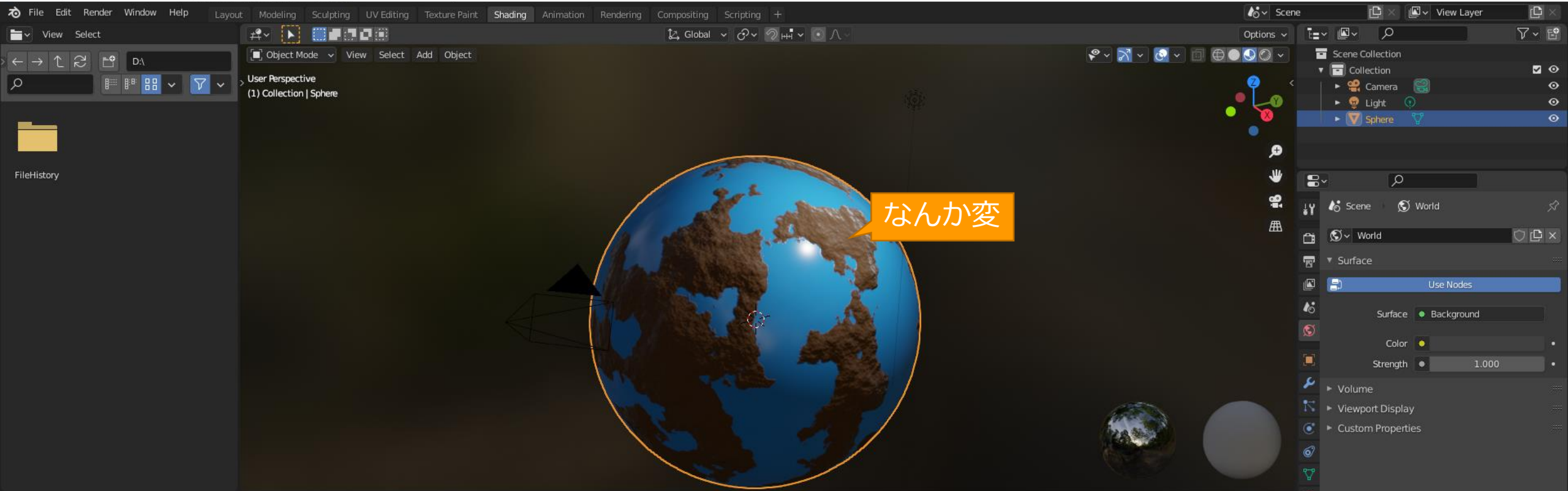


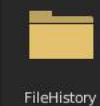
場所によって
Roughness が変わる



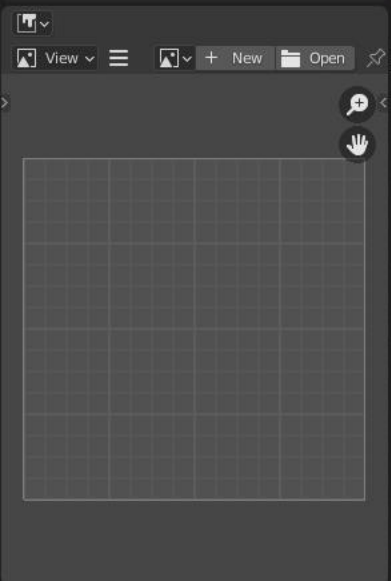
Value が 0.5 以下なら Result は 0.2
0.51 以上ならは 0.8

From Min を 0.5, From Max を 0.51
To Min を 0.2, To Max を 0.8 にする





FileHistory

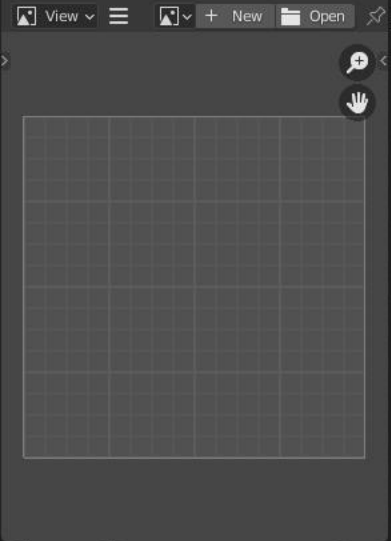


Material.001

AddメニューのColorから
Invertを選ぶ



FileHistory

User Perspective
(1) Collection | Sphere

Scene Lights のチェック☑をはずす

Strength を増して
明るくする

Viewport Shading

Lighting

Scene Lights

Scene World



Rotation 0°

Strength 1.000

World Opacity 1.000

Blur 0.50

Render Pass

Combined

World

Use Nodes

Surface Background

Color

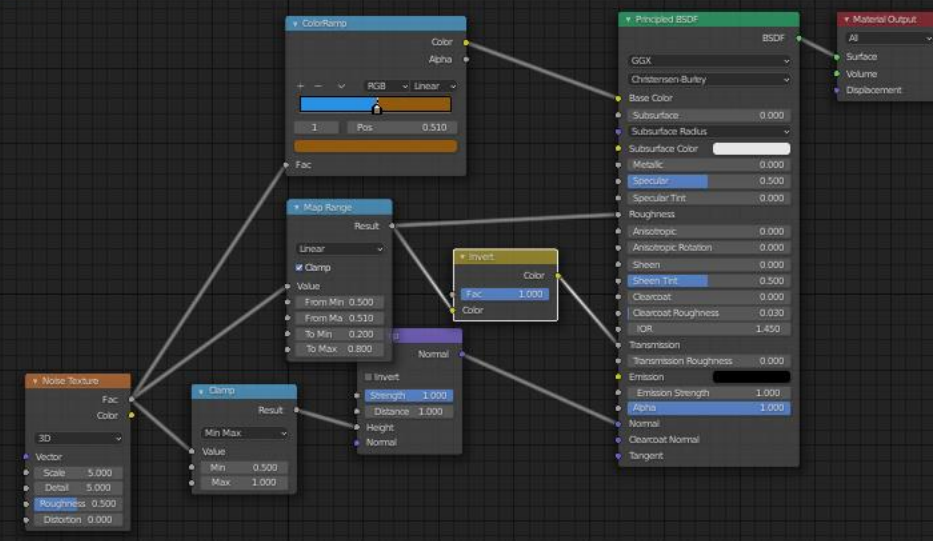
Strength 1.000

Volume

Viewport Display

Custom Properties

Material.001



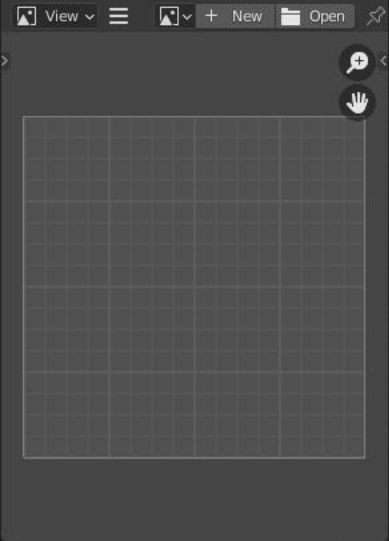
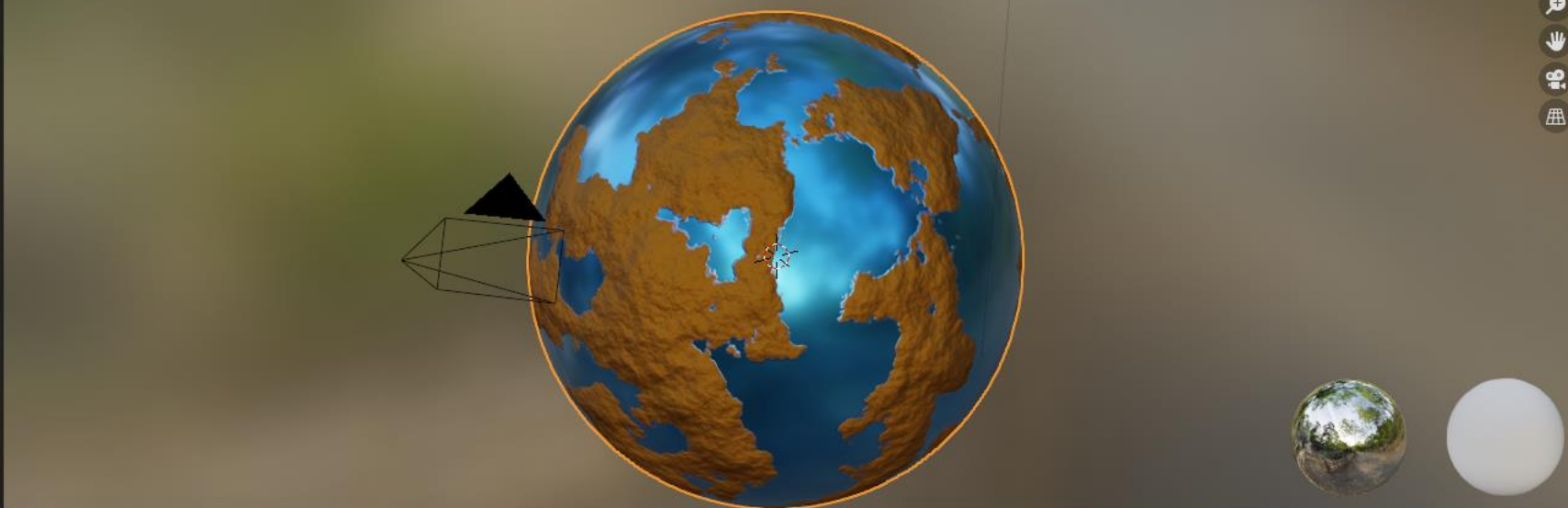


FileHistory

Object Mode View Select Add Object

User Perspective

(1) Collection | Sphere

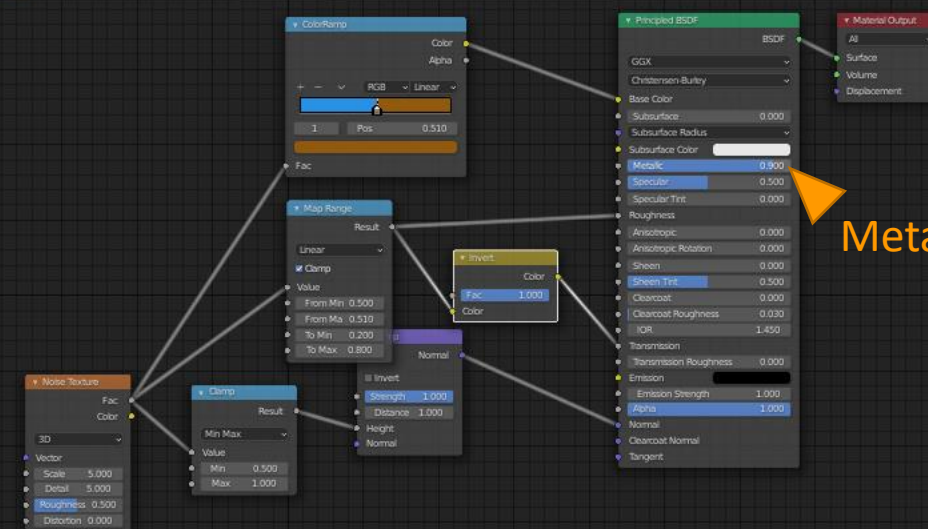


Object View Select Add Node Use Nodes

Slot 1

Material.001

Material.001



Metallic を増してみる

Scene Collection

- Collection
 - Camera
 - Light
 - Sphere

Scene World

World

Surface

Use Nodes

Surface Background

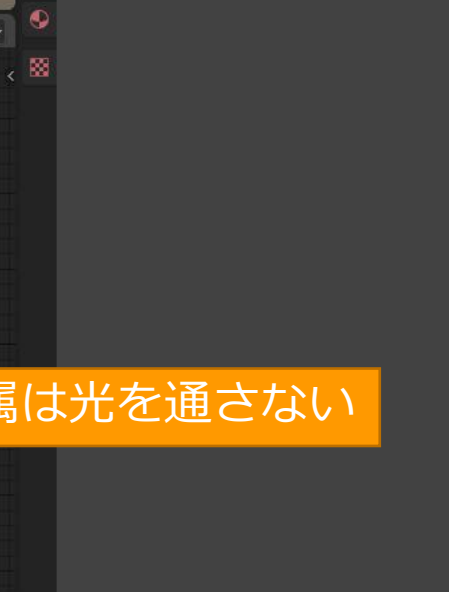
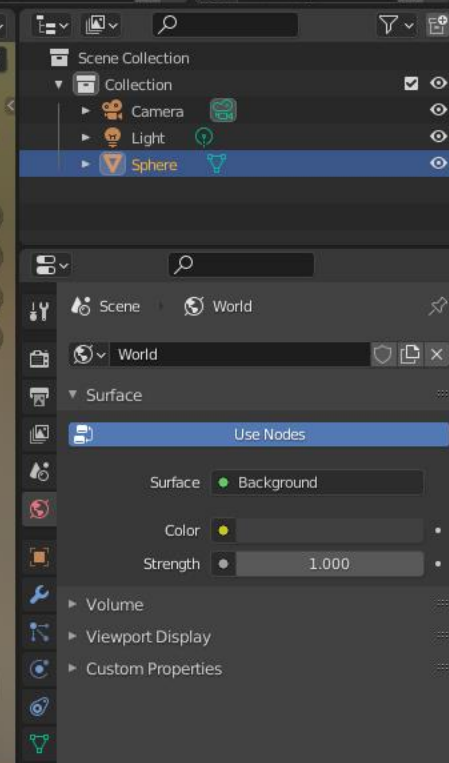
Color

Strength 1.000

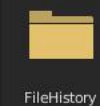
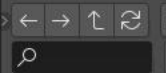
Volume

Viewport Display

Custom Properties



これを選択して X

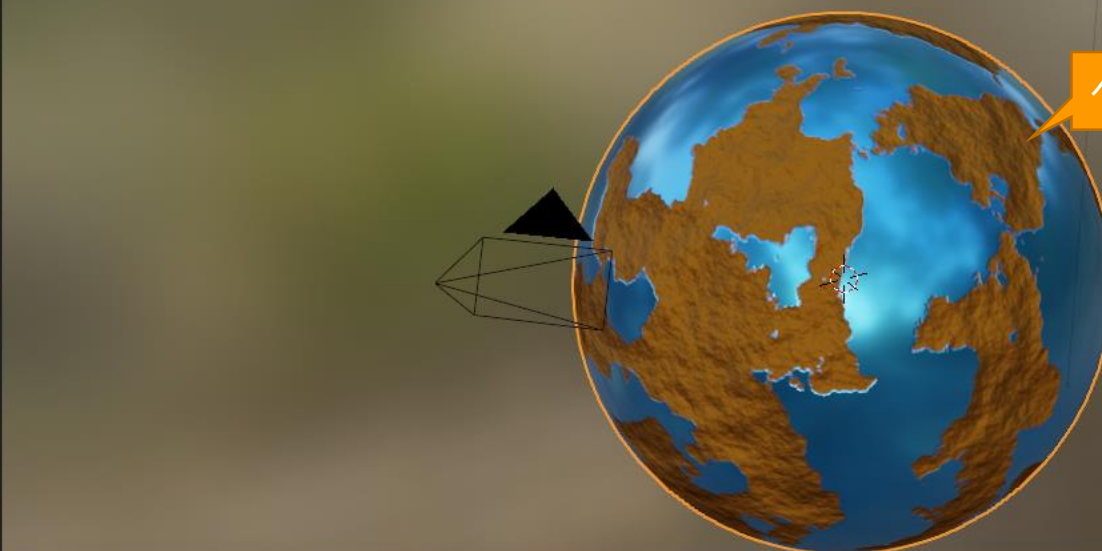


FileHistory

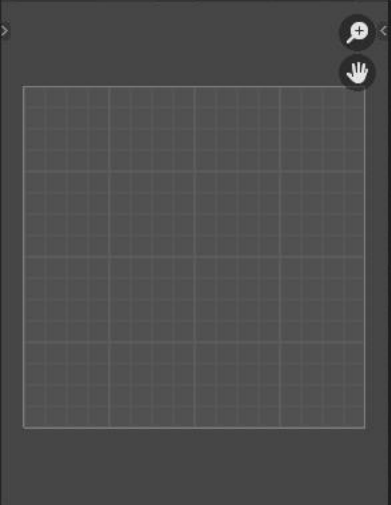
Object Mode View Select Add Object

User Perspective

(1) Collection | Sphere



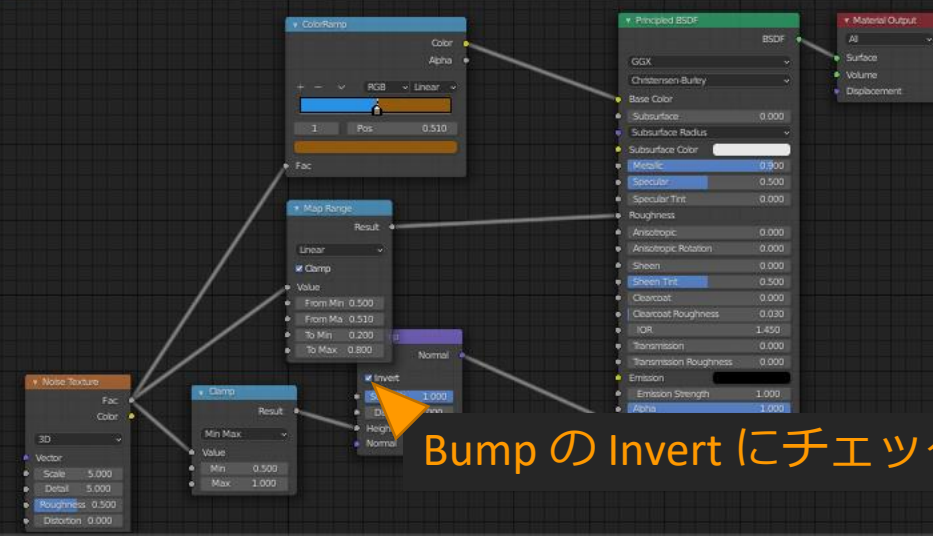
へこんで見える



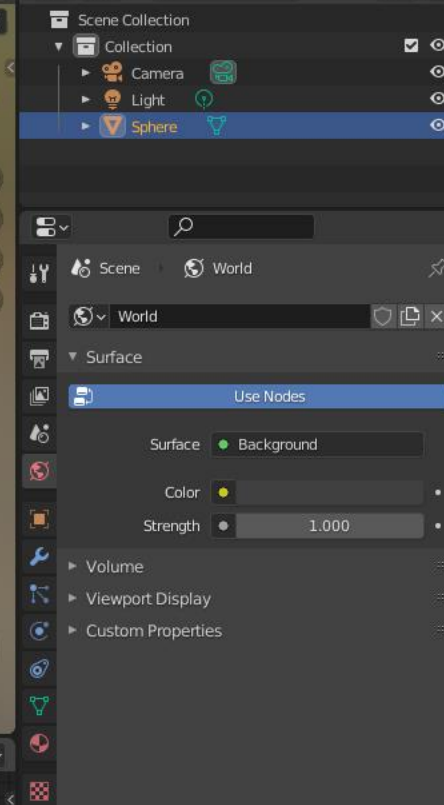
Object View Select Add Node Use Nodes

Slot 1

Material.001



Bump の Invert にチェックを入れる

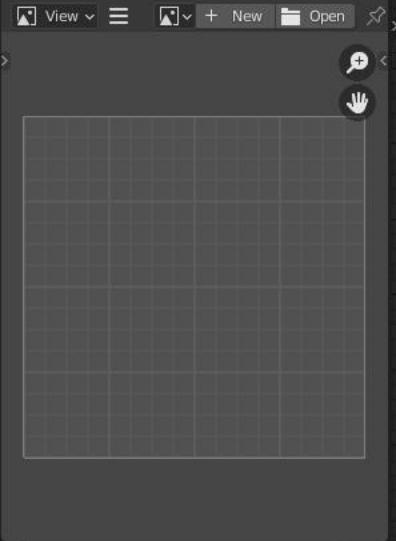


User Perspective

(1) Collection | Sphere

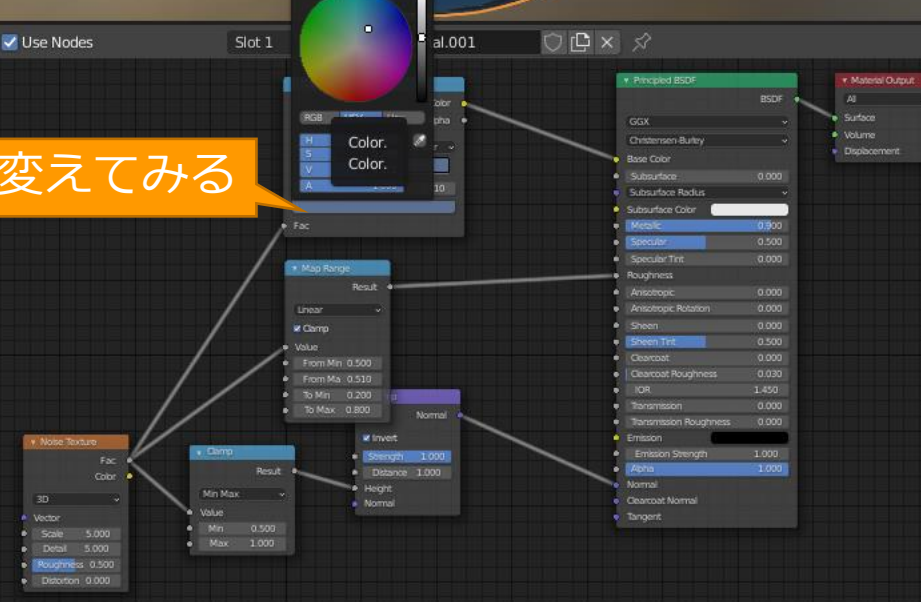
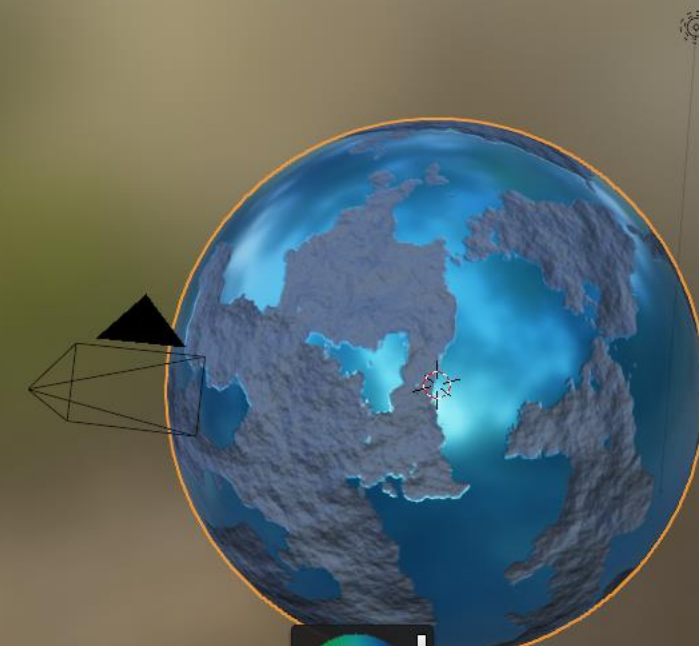


FileHistory



Material.001

色を変えてみる



Scene Collection

Collection

Camera

Light

Sphere

Scene

World

World

Surface

Use Nodes

Surface

Background

Color

Strength

1.000

Volume

Viewport Display

Custom Properties



FileHistory

Object Mode View Select Add Object

User Perspective

(1) Collection | Sphere

Options

Scene Collection

Collection

Camera

Light

Sphere

Scene World

World

Surface

Use Nodes

Surface Background

Color

Strength 1.000

Volume

Viewport Display

Custom Properties

Object View Select Add Node Use Nodes

Slot 1

Material.001

ノイズを変えてみる

Material.001

Noise texture

Vector

Scale 5.600

Detail 5.600

Roughness 0.725

Distortion 0.000

Color Ramp

Color

Alpha

RGB

Linear

1 Pos 0.510

Fac

Map Range

Result

Linear

Clamp

Value

From Min 0.500

From Max 0.510

To Min 0.200

To Max 0.800

Normal

Invert

Strength 1.000

Distance 1.000

Height

Normal

Clamp

Result

Min Max

Value

Min 0.500

Max 1.000

Principled BSDF

BSDF

GGX

Chittenden-Burley

Base Color

Subsurface 0.000

Subsurface Radius

Subsurface Color

Metallic 0.900

Specular 0.500

Specular Tint 0.000

Roughness

Anisotropic 0.000

Anisotropic Rotation 0.000

Sheen 0.000

Sheen Tint 0.500

Clearcoat 0.000

Clearcoat Roughness 0.000

IOR 1.450

Transmission 0.000

Transmission Roughness 0.000

Emission

Emission Strength 1.000

Alpha 1.000

Normal

Clearcoat Normal

Tangent

Material Output

All

Surface

Volume

Displacement